SIMPLY GOOD AND BEAUTIFUL MATH K
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math K.* This page is for the parent/teacher to record the child's score and includes the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The next page is the student page and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on this page for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box at the bottom of the page.

Part A: Identify Colors & Shapes

Point to the Part A box at the top of the next page and read to the child: Here are shapes with different colors. Listen as I ask you to point to different colors and tell me the name of each shape. If the child points to an incorrect colored shape, point to the correct shape before asking the name of the shape.

- ◯ Point to the shape that is red.
- ◯ What is the name of the red shape? [triangle]
- ◯ Point to the shape that is dark blue.
- ◯ What is the name of the dark blue shape? [square]
- ◯ Point to the shape that is black.
- ◯ What is the name of the black shape? [circle]
- ◯ Point to the shape that is pink.
- ◯ What is the name of the pink shape? [rectangle]
- ◯ Point to the shape that is brown.
- ◯ What is the name of the brown shape? [heart]
- ◯ Point to the shape that is yellow.
- ◯ What is the name of the yellow shape? [star]
- ◯ Point to the shape that is light blue.
- ◯ What is the name of the light blue shape? [rectangle]
- ◯ Point to the shape that is white.
- ◯ What is the name of the white shape? [star]
- ◯ Point to the shape that is orange.
- ◯ What is the name of the orange shape? [circle]
- ◯ Point to the shape that is purple.
- ◯ What is the name of the purple shape? [heart]
- ◯ Point to the shape that is green.
- ◯ What is the name of the green shape? [triangle]
- ◯ Point to the shape that is gray.
- ◯ What is the name of the gray shape? [square]

Part B: Number Recognition & Counting Objects

Read to the child:

- ◯ Count from 1 to 10.

Point to the Part B box on the next page. Look at the numbers listed at the top of this box. Point to the correct number as I say it aloud.

- ◯ Point to the number 5.
- ◯ Point to the number 3.
- ◯ Point to the number 1.
- ◯ Point to the number 2.
- ◯ Point to the number 4.

Look at the animals shown at the bottom of this box.

- ◯ How many foxes are there? [2]
- ◯ How many rabbits are there? [4]
- ◯ How many bears are there? [1]
- ◯ How many squirrels are there? [5]
- ◯ How many wolves are there? [3]

Draw a line from each number to the group of animals that matches that number. Answers are listed below for scoring purposes.

- ◯ [1 → bear]
- ◯ [2 → foxes]
- ◯ [3 → wolves]
- ◯ [4 → rabbits]
- ◯ [5 → squirrels]

Number of correct responses

There are 40 points possible for this test. If the score is 32 or more, the child is ready to begin *Simply Good and Beautiful Math K*. If the score is 31 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math K* reviews all the concepts assessed in this placement test.

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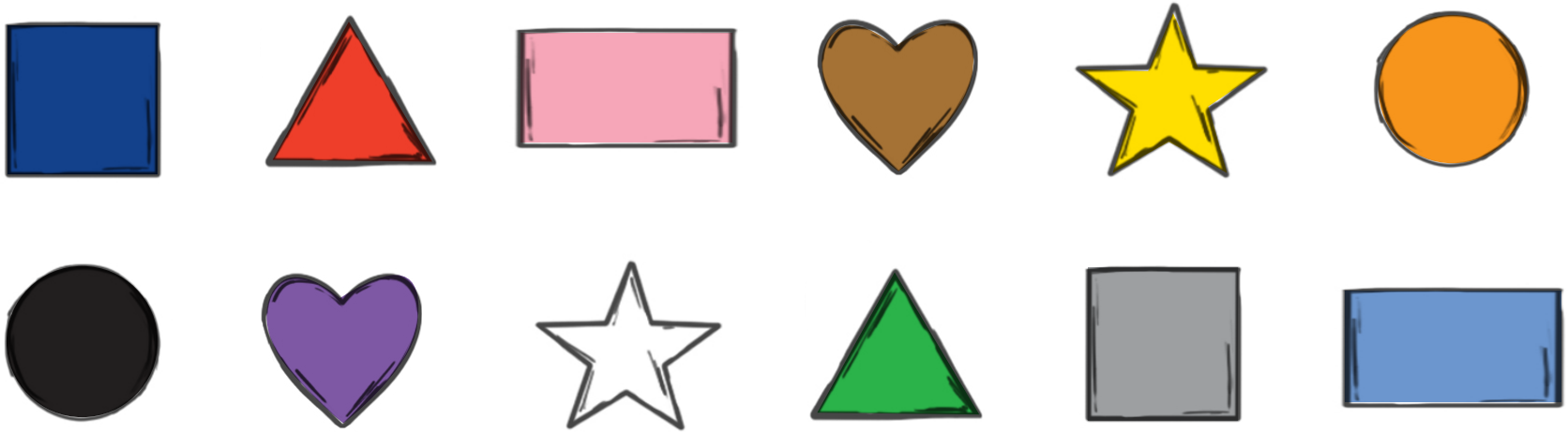
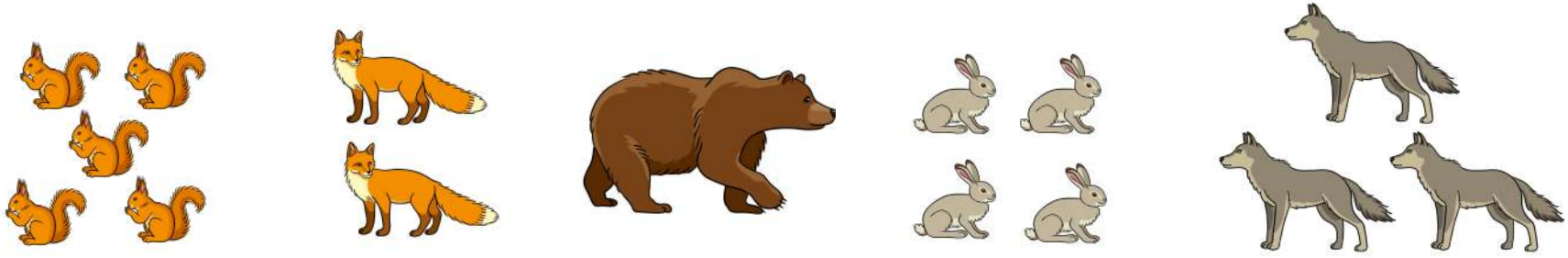
Part A



Part B

4 1 5 3 2



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SIMPLY GOOD AND BEAUTIFUL MATH 1
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 1.* This page is for the parent/teacher to record the child's score and includes the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The next page is the student page and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on this page for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box at the bottom of the page.

Part A: Number Sense

Read to the child:

- ◯ Count from 1 to 100.
- ◯ Skip count by 2s from 2 to 20.
- ◯ Skip count by 10s from 10 to 100.

Point to the Part A box on the next page. Point to each number shown at the top of the box as I say it aloud.

◯35 ◯81 ◯72 ◯90 ◯26 ◯58 ◯13 ◯47

Using the numbers at the bottom of the box, draw a square around the even numbers and a triangle around the odd numbers. Answers are listed below for scoring purposes.

ODD: ◯ [1] ◯ [3] ◯ [5] ◯ [7]
EVEN: ◯ [0] ◯ [2] ◯ [4] ◯ [6]

Part B: Shapes & Ordinal Numbers

Point to the Part B box on the next page. Read to the child: Here are shapes arranged in a specific order. Listen as I ask you to point to the shape according to its place in the set. If the child points to an incorrect shape, point to the correct shape before asking the name of the shape.

- ◯ Point to the 3rd shape.
- ◯ What is the name of the 3rd shape? [triangle]
- ◯ Point to the 1st shape.
- ◯ What is the name of the 1st shape? [rectangle]
- ◯ Point to the 4th shape.
- ◯ What is the name of the 4th shape? [oval]
- ◯ Point to the 2nd shape.
- ◯ What is the name of the 2nd shape? [circle]
- ◯ Point to the 5th shape.
- ◯ What is the name of the 5th shape? [square]

Part C: Addition

Point to the Part C box on the next page. Read to the child: Complete each addition problem in this box. Answers are listed below for scoring purposes.

- ◯ 4 + 4 = [8]
- ◯ 3 + 3 = [6]
- ◯ 7 + 0 = [7]
- ◯ 2 + 7 = [9]
- ◯ 9 + 1 = [10]

Part D: Subtraction

Point to the Part D box on the next page. Read to the child: Complete each subtraction problem in this box. The child may complete these subtraction problems using his or her fingers. Answers are listed below for scoring purposes.

- ◯ 3 – 1 = [2]
- ◯ 4 – 2 = [2]
- ◯ 4 – 0 = [4]
- ◯ 5 – 2 = [3]
- ◯ 5 – 1 = [4]

Part E: Time & Money

Point to the Part E box on the next page. Read to the child:
Point to the clock that shows the time I say aloud.

◯7:00 ◯2:00 ◯11:00 ◯9:00 ◯4:00

Look at the group of coins.

- ◯ Point to the penny.
- ◯ How much is a penny worth? [one cent]
- ◯ Point to the nickel.
- ◯ How much is a nickel worth? [five cents]
- ◯ Point to the dime.
- ◯ How much is a dime worth? [ten cents]

Number of correct responses ☐

There are 50 points possible for this test. If the score is 40 or more, the child is ready to begin *Simply Good and Beautiful Math 1*. If the score is 39 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math 1* reviews all the concepts assessed in this placement test.

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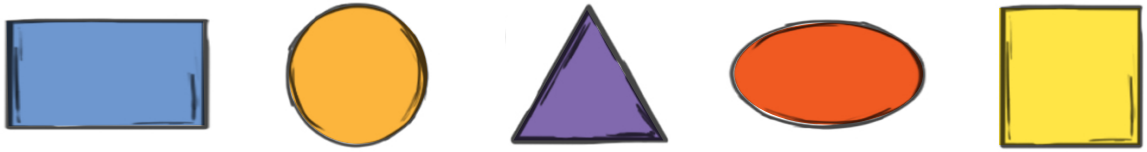
Part A

90 47 35

81 13

72 26 58

Part B



Part C

4 + 4 =

7 + 0 =

9 + 1 =

$$\begin{array}{r} 3 \\ +\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\ 7 \\ \hline \end{array}$$

Part D

3 - 1 =

4 - 0 =

5 - 1 =

4 - 2 =

5 - 2 =

Part E

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SIMPLY GOOD AND BEAUTIFUL MATH 2
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 2.* The first two pages are for the parent/teacher to record the child's score and include the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The next two pages are the student pages and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on the parent/teacher pages for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box on page 2.

Part A: Counting & Writing Number Words

Read to the child:

- ○ Count from 960 to 999.
- ○ Count backward from 30 to 1.
- ○ Skip count by 2s from 2 to 50.
- ○ Skip count by 5s from 5 to 50.
- ○ Skip count by 10s from 10 to 100.
- ○ Skip count by 100s from 100 to 1,000.

Point to the Part A box on page 3. Read to the child: Write the word for each number listed on the line provided.

- ○ 10 [ten]
- ○ 8 [eight]
- ○ 7 [seven]
- ○ 9 [nine]
- ○ 11 [eleven]
- ○ 12 [twelve]

Part B: Identifying Numbers & Place Value

Point to the Part B box on page 3. Read to the child: Write the numbers I say aloud in the colored boxes.

- ○ ninety-eight [98]
- ○ seventy-four [74]
- ○ fifty-three [53]
- ○ eighty-seven [87]
- ○ sixty [60]
- ○ forty-one [41]

Using the same numbers, write each number in the correct column of the table shown.

ODD:	○ [53]	○ [41]	○ [87]
EVEN:	○ [60]	○ [74]	○ [98]

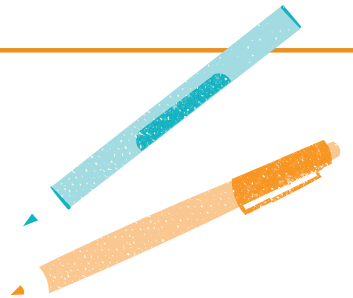
Read to the child: Look at the groups of base-10 blocks. Write the number of one blocks and ten sticks for each group. Then write the number represented by the base-10 blocks in the orange box.

- ○ [3 tens, 2 ones, 32]
- ○ [1 ten, 6 ones, 16]
- ○ [0 tens, 8 ones, 8]

Part C: Shapes

Point to the Part C box on page 4. Read to the child: Look at these shapes. Point to the shape that matches the name I say aloud. If the child points to an incorrect shape, point to the correct shape before moving on.

- ○ hexagon
- ○ rhombus
- ○ pentagon
- ○ sphere
- ○ pyramid
- ○ cube



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Part D: Addition & Subtraction

Point to the Part D box on page 4. Read to the child: Complete each problem in this box.

- ○ 6 + 6 = [12]
- ○ 7 + 7 = [14]
- ○ 8 + 8 = [16]
- ○ 9 + 9 = [18]
- ○ 26 + 10 = [36]
- ○ 51 + 27 = [78]
- ○ 9 – 2 = [7]
- ○ 74 – 10 = [64]
- ○ 15 – 10 = [5]
- ○ 5 + 2 + 7 = [14]

Part E: Time & Money

Read to the child:

- ○ Say the days of the week in order.
- ○ Say the months of the year in order.
- ○ How many days are in a week? [7]
- ○ How many months are in a year? [12]
- ○ If today is April 4th, what will be tomorrow's date? [April 5th]
- ○ If today is November 23rd, what was yesterday's date? [November 22nd]
- ○ If today is February 18th, what month was last month? [January]
- ○ If today is June 10th, what will be the next month? [July]

Point to the Part E box on page 4. Read to the child: Look at the group of clocks. Write the time shown in the box below each clock.

- ○ [5:35]
- ○ [9:50]
- ○ [11:10]

Point to the coins. Read to the child: Say the name and value of each coin, starting with the coin on the left and working your way to the right.

- ○ [quarter, 25 cents]
- ○ [dime, 10 cents]
- ○ [nickel, 5 cents]
- ○ [half-dollar, 50 cents]
- ○ [penny, 1 cent]
- ○ Read to the child: Write the total value of all the coins in the orange box. [91 cents or 91¢]

Number of correct responses

There are 60 points possible for this test. If the score is 48 or more, the child is ready to begin *Simply Good and Beautiful Math 2*. If the score is 47 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child has these important concepts mastered, *Simply Good and Beautiful Math 2* reviews all the concepts assessed in this placement test.

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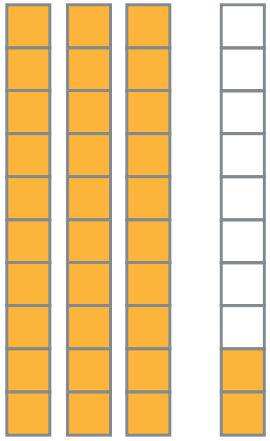
Part A

10 _____ 7 _____ 11 _____

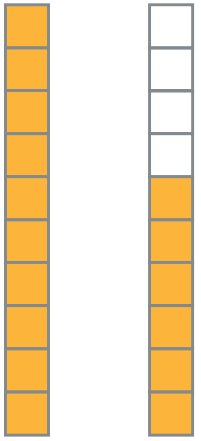
8 _____ 9 _____ 12 _____

Part B

Even	Odd



_____ tens _____ ones



_____ tens _____ ones

_____ tens _____ ones

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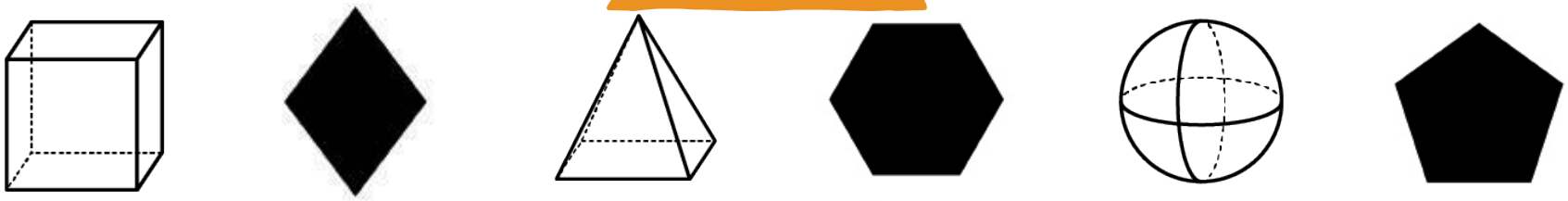
Part C



Part D

6	7	8	9	26	51	9	74	15
+ 6	+ 7	+ 8	+ 9	+10	+27	- 2	-10	-10

5 + 2 + 7 = ____

Part E

: ____

: ____

: ____

total amount: ____

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SIMPLY GOOD AND BEAUTIFUL MATH 3
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 3.* The first two pages are for the parent/teacher to record the child's score and include the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The next two pages are the student pages and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on the parent/teacher pages for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box on page 2.

Part A: Number Sense & Recognition

Read to the child:

- ○ Count from 1,001 to 1,050.
- ○ Count backward by 2s from 40 to 2.
- ○ Count backward by 5s from 50 to 5.
- ○ Count backward by 10s from 100 to 10.
- ○ Count backward by 100s from 1,000 to 100.

Point to the top of the Part A box on page 3. Read to the child:
Write the word for each number listed on the line provided.

- ○ 16 [sixteen]
- ○ 19 [nineteen]
- ○ 15 [fifteen]
- ○ 18 [eighteen]
- ○ 17 [seventeen]

Point to the bottom of the Part A box on page 3 and read to the child: In the orange boxes, write the numbers I say aloud.

- ○ one thousand, nine hundred eighty-seven [1,987]
- ○ seven hundred sixty-four [764]
- ○ six thousand, nine hundred eighty [6,980]
- ○ five hundred thirty-three [533]
- ○ nine thousand, nine hundred ninety-five [9,995]

Using the same numbers, circle the even numbers and underline the odd numbers.

ODD: ○ [1,987] ○ [533] ○ [9,995]
EVEN: ○ [764] ○ [6,980]

Part B: Place Value, Expanded Form & Rounding

Point to the Part B box on page 3. Read to the child: Look at the groups of base-10 blocks. Write the number of one blocks, ten sticks, hundred squares, and thousand cubes for each group. Then write the number represented by the base-10 blocks.

- ○ [3 hundreds, 5 tens, 7 ones, 357]
- ○ [1 thousand, 2 hundreds, 0 tens, 5 ones, 1,205]
- ○ [2 thousands, 0 hundreds, 4 tens, 3 ones, 2,043]

Read to the child: Write the expanded form for each of the numbers listed.

- ○ 519 [500 + 10 + 9]
- ○ 1,982 [1,000 + 900 + 80 + 2]
- ○ 7,801 [7,000 + 800 + 1]

Round each number to the nearest 10.

- ○ 59 [60]
- ○ 34 [30]
- ○ 65 [70]

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Part C: Fractions

Point to the Part C box on page 4. Read to the child: Look at the different shapes shown at the top of this box. Write the fraction of each shape that is shaded.

- ○ a. [$\frac{3}{4}$]
- ○ b. [$\frac{3}{8}$]
- ○ c. [$\frac{1}{2}$]
- ○ d. [$\frac{2}{3}$]
- ○ e. [$\frac{4}{5}$]
- ○ f. [$\frac{2}{4}$ or $\frac{1}{2}$]

Read to the child: Look at the fractions at the bottom of the box. Compare each pair of fractions using a greater than, less than, or equal sign. You can use the shapes above to help you answer each question if needed.

- ○ $\frac{1}{2}$ [=] $\frac{2}{4}$
- ○ $\frac{1}{4}$ [<] $\frac{3}{4}$
- ○ $\frac{4}{5}$ [>] $\frac{2}{5}$
- ○ $\frac{7}{8}$ [>] $\frac{3}{8}$

Part D: Addition & Subtraction

Point to the Part D box on page 4. Read to the child: Complete each problem in this box.

- ○ 398 + 274 = [672]
- ○ 564 − 243 = [321]
- ○ 546 + 287 = [833]
- ○ 721 − 367 = [354]

The following problems are found in the boxes around the number 3,513. Read to the child: Write the correct number in each box.

- ○ 10 less [3,503]
- ○ 10 more [3,523]
- ○ 100 less [3,413]
- ○ 100 more [3,613]

It is expected that the child knows these concepts before starting *Simply Good and Beautiful Math 3*.

- 2D shapes (rectangle, square, triangle, rhombus, hexagon, pentagon, trapezoid)
- 3D shapes (cube, cone, cylinder, sphere, rectangular prism, pyramid)
- Ordinal positions: 1st through 12th
- Days of the week
- Months of the year
- The difference between AM and PM
- Doubles addition facts to 9 + 9

Number of correct responses

There are 60 points possible for this test. If the score is 48 or more, the child is ready to begin *Simply Good and Beautiful Math 3*. If the score is 47 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math 3* reviews all the concepts assessed in this placement test.

Part E: Time & Money

Read to the child: Answer these questions.

- ○ What time is noon? [12:00 PM]
- ○ What time is midnight? [12:00 AM]
- ○ How many seconds are in a minute? [60]
- ○ How many minutes are in an hour? [60]
- ○ How many hours are in a day? [24]

Point to the clocks in the Part E box on page 4. Read to the child: Look at the clocks. Write the time in the box below each clock.

- ○ [11:32]
- ○ [6:18]
- ○ [2:50]

Read to the child: Write the time to show the time expressions listed.

- ○ Quarter after 12 [12:15]
- ○ Half past 9 [9:30]
- ○ Quarter to 2 [1:45]

Point to the addition and subtraction problems. Read to the child: Complete each problem by adding or subtracting amounts of money.

- ○ $5.65 + $3.15 = [$8.80]
- ○ $8.42 − $4.25 = [$4.17]

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Part A

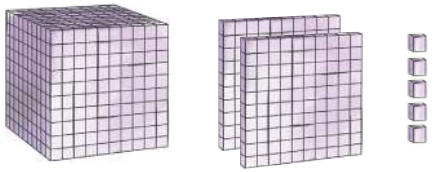
16 _____ 19 _____ 15 _____

18 _____ 17 _____

Part B

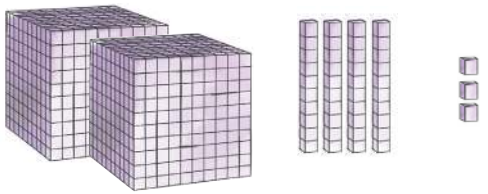
_____ _____ _____

hundreds tens ones



_____ _____ _____ _____

thousands hundreds tens ones



_____ _____ _____ _____

thousands hundreds tens ones

519 _____

1,982 _____

7,801 _____

59 → _____

34 → _____

65 → _____

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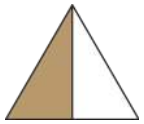
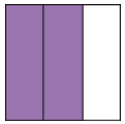
Part C

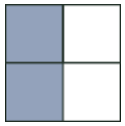
a.  ___

b.  ___

c.  ___

d.  ___

e.  ___

f.  ___

$\frac{1}{2}$ ☐ $\frac{2}{4}$ $\frac{1}{4}$ ☐ $\frac{3}{4}$

$\frac{4}{5}$ ☐ $\frac{2}{5}$ $\frac{7}{8}$ ☐ $\frac{3}{8}$

Part D

398	564	546	721
+ 274	- 243	+ 287	- 367
☐	☐	☐	☐

	10 less	
100 less	3,513	100 more
	10 more	

Part E

 ☐

 ☐

 ☐

Quarter after 12 ☐

Half past 9 ☐

Quarter to 2 ☐

$5.65	$8.42
+ $3.15	− $4.25
☐	☐

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SIMPLY GOOD AND BEAUTIFUL MATH 4
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 4.* The first two pages are for the parent/teacher to record the child's score and include the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The last two pages are the student pages and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on the parent/teacher pages for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box at the bottom of page 2.

Part A: Numbers Through the Millions

Point to the top of the Part A box on page 3. Read to the child: Round the number shown at the top of the box to each place value listed.

- ○ ten thousands [6,150,000]
- ○ thousands [6,149,000]
- ○ millions [6,000,000]
- ○ hundred thousands [6,100,000]

Read to the child: Write the expanded form for each of the numbers listed in the middle of the Part A box.

- ○ 5,981,719 [5,000,000 + 900,000 + 80,000 + 1,000 + 700 + 10 + 9]
- ○ 132,257 [100,000 + 30,000 + 2,000 + 200 + 50 + 7]
- ○ 97,720 [90,000 + 7,000 + 700 + 20]

Point to the bottom of the Part A box. Read to the child: Write each number listed in word form.

- ○ 761,983 [seven hundred sixty-one thousand, nine hundred eighty-three]
- ○ 2,873,019 [two million, eight hundred seventy-three thousand, nineteen]
- ○ 34,923 [thirty-four thousand, nine hundred twenty-three]

Part B: Addition & Subtraction

Point to the Part B box on page 3. Read to the child: Complete each problem in this box.

- ○ 342,801 + 149,989 = [492,790]
- ○ 75,981 + 31,367 = [107,348]
- ○ 42,719 + 10,000 = [52,719]
- ○ 3,518,382 − 2,995,171 = [523,211]
- ○ 5,791 − 3,291 = [2,500]
- ○ 9,000 − 3,526 = [5,474]

Part C: Multiplication & Division

Point to the Part C box on page 3. Read to the child: Complete each problem in this box.

- ○ 102 × 5 = [510]
- ○ 1,352 × 3 = [4,056]
- ○ 7,000 × 4 = [28,000]
- ○ 16 ÷ 2 = [8]
- ○ 24 ÷ 6 = [4]
- ○ 9 ÷ 3 = [3]

The items listed below are not assessed in this placement test. It is expected that the child knows these concepts before starting *Simply Good and Beautiful Math 4.*

- 3D shapes (cube, cone, cylinder, sphere, rectangular prism, pyramid)
- Days of the week
- Months of the year
- The difference between AM and PM
- Common measurement conversions (12 inches = 1 foot, 3 feet = 1 yard, etc.)

Note about Multiplication Facts: Although the child is encouraged to have the multiplication facts up to 12 × 12 memorized, *Simply Good and Beautiful Math 4* includes practice for all of these multiplication facts.

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Part D: Fractions

Point to the Part D box on page 4. Read to the child: Look at the different shapes shown at the top of the box. Write the shaded part of each shape or shapes as a fraction or mixed number.

- ○ [$\frac{4}{10}$ or $\frac{2}{5}$]
- ○ [$\frac{2}{5}$]
- ○ [$\frac{5}{6}$]
- ○ [$\frac{3}{8}$]
- ○ [$1\frac{2}{3}$]
- ○ [$2\frac{1}{2}$]

Read to the child: Look at the fractions listed in the middle of the Part D box. Compare each pair of fractions using a greater than, less than, or equal sign.

- ○ $\frac{1}{2}$ [=] $\frac{3}{6}$
- ○ $\frac{3}{4}$ [<] $\frac{3}{6}$
- ○ $\frac{5}{7}$ [>] $\frac{1}{7}$
- ○ $\frac{4}{4}$ [=] $\frac{3}{3}$

Read to the child: Look at the problems listed at the bottom of the Part D box. Add or subtract each group of fractions or mixed numbers.

- ○ $\frac{3}{5} + \frac{1}{5} = [\frac{4}{5}]$
- ○ $3\frac{2}{7} + 1\frac{3}{7} = [4\frac{5}{7}]$
- ○ $\frac{7}{8} - \frac{5}{8} = [\frac{2}{8}$ or $\frac{1}{4}]$
- ○ $2\frac{3}{4} - 1\frac{1}{4} = [1\frac{2}{4}$ or $1\frac{1}{2}]$

Part E: Time & Money

Point to the Part E box on page 4. Read to the child: Look at the clocks. Write the time shown in the box below each clock.

- ○ [11:14 AM]
- ○ [11:47 AM]
- ○ [4:00 PM]
- ○ [9:30 PM]

Read to the child: Using the same clocks as before, write how much time has passed from the clock on the left to the clock on the right.

- ○ 11:14 AM to 11:47 AM [33 minutes]
- ○ 4:00 PM to 9:30 PM [5 hours 30 minutes]

Read to the child: Write the times to show the time expressions listed.

- ○ 10 til 5 [4:50]
- ○ 10 past 3 [3:10]

Point to the multiplication problems. Read to the child: Complete each money multiplication problem.

- ○ $5.62 × 2 = [$11.24]
- ○ $4.25 × 6 = [$25.50]

Part F: Geometry

Point to the top of the Part F box on page 4. Read to the child: Look at these geometric figures. Point to the figure that matches the name I say aloud. If the child points to an incorrect figure, point to the correct figure before moving on.

- ○ point •
- ○ line ⟷
- ○ line segment —
- ○ ray →
- ○ parallel lines ⟷ ⟷
- ○ perpendicular lines
- ○ acute angle
- ○ obtuse angle
- ○ right angle

Point to the bottom of the Part F box. Read to the child: Look at these shapes. Point to the shape that matches the name I say aloud. If the child points to an incorrect shape, point to the correct shape before moving on.

- ○ square
- ○ trapezoid
- ○ rectangle
- ○ rhombus
- ○ parallelogram

Number of correct responses

There are 60 points possible for this test. If the score is 48 or more, the child is ready to begin *Simply Good and Beautiful Math 4*. If the score is 47 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math 4* reviews all the concepts assessed in this placement test.

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Part A

6,148,748

ten thousands	thousands	millions	hundred thousands

5,981,719 _____

132,257 _____

97,720 _____

761,983 _____

2,873,019 _____

34,923 _____

Part B

$$\begin{array}{r} 342{,}801 \\ +\ 149{,}989 \\ \hline \end{array} \qquad \begin{array}{r} 75{,}981 \\ +\ 31{,}367 \\ \hline \end{array} \qquad \begin{array}{r} 42{,}719 \\ +\ 10{,}000 \\ \hline \end{array}$$

$$\begin{array}{r} 3{,}518{,}382 \\ -2{,}995{,}171 \\ \hline \end{array} \qquad \begin{array}{r} 5{,}791 \\ -\ 3{,}291 \\ \hline \end{array} \qquad \begin{array}{r} 9{,}000 \\ -\ 3{,}526 \\ \hline \end{array}$$

Part C

$$\begin{array}{r} 102 \\ \times\ \ 5 \\ \hline \end{array} \qquad \begin{array}{r} 1{,}352 \\ \times\ \ 3 \\ \hline \end{array}$$

7,000 × 4 =

16 ÷ 2 =

24 ÷ 6 =

9 ÷ 3 =

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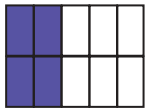
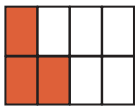
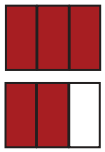
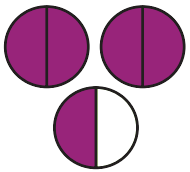
Part D









$\frac{1}{2}$ ☐ $\frac{3}{6}$ $\frac{3}{9}$ ☐ $\frac{3}{6}$

$\frac{5}{7}$ ☐ $\frac{1}{7}$ $\frac{4}{4}$ ☐ $\frac{3}{3}$

$\frac{3}{5} + \frac{1}{5} =$ ☐ $3\frac{2}{7} + 1\frac{3}{7} =$ ☐

$\frac{7}{8} - \frac{5}{8} =$ ☐ $2\frac{3}{4} - 1\frac{1}{4} =$ ☐

Part E

AM

☐ : ☐ AM ☐ : ☐ AM

Elapsed Time ☐

PM

☐ : ☐ PM ☐ : ☐ PM

Elapsed Time ☐

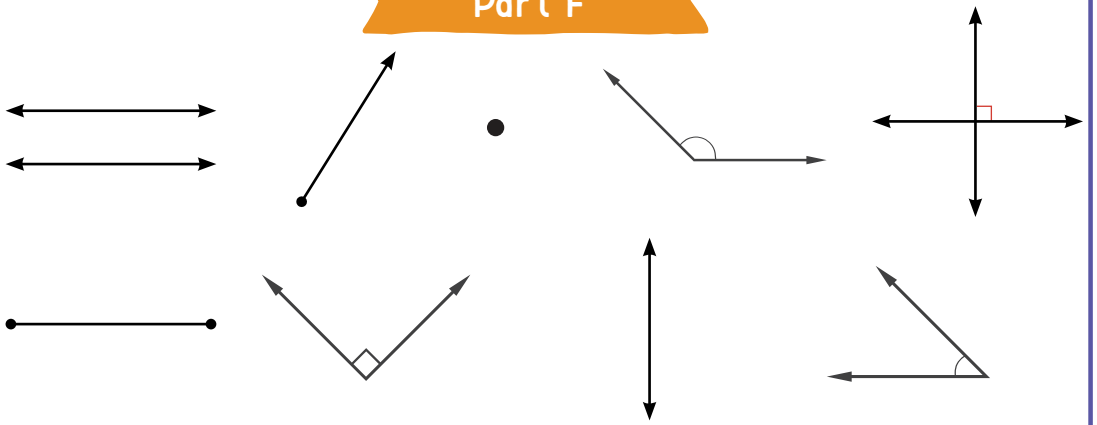
10 til 5 ☐ : ☐

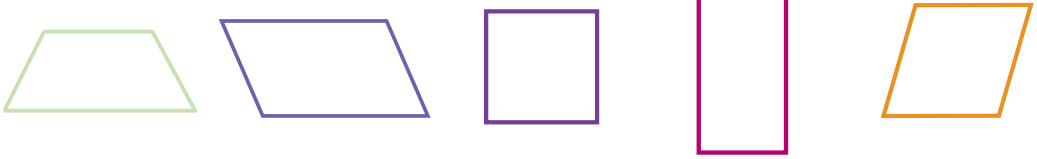
10 past 3 ☐ : ☐

$5.62 × 2 = ☐

$4.25 × 6 = ☐

Part F





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SIMPLY GOOD AND BEAUTIFUL MATH 5
Placement Test

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 5.* The first two pages are for the parent/teacher to record the child's score and include the oral portion of the test. Blue text is instruction to the parent/teacher. Black text is read to the child. The last three pages are the student pages and should be given to the child when ready to begin. To record the child's scores, place a check mark in the circle located next to each question on the parent/teacher pages for each correct response. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box at the bottom of page 2.

Part A: Numbers Through the Millions

Point to the Part A box on page 3. Read to the child: Round the number shown on the left side of the box to each place value listed.

- ○ ten millions [370,000,000]
- ○ millions [372,000,000]
- ○ hundred thousands [371,800,000]
- ○ hundred millions [400,000,000]

Read to the child: Compare each pair of numbers using a less than, greater than, or equal sign.

- ○ 39,715,624 [<] 39,717,842
- ○ 2,674,824 [>] 677,917

Read to the child: Order the numbers from greatest (on top) to least.

- ○ 347,287,104 (greatest)
- ○ 347,234,765
- ○ 347,231,985 (least)

Part B: Decimal Numbers

Point to the Part B box on page 3 and read to the child: Write each decimal number using digits in the table.

- ○ ten and thirty-three hundredths [10.33]
- ○ four and five tenths [4.5]
- ○ seven and five hundred eighty-nine thousandths [7.589]
- ○ twenty-one and six hundredths [21.06]

Read to the child: Complete each problem.

- ○ 0.75 + 57.80 = [58.55]
- ○ 287.150 − 6.724 = [280.426]
- ○ 182 × 3.4 = [618.8]

Read to the child: Round each decimal number to the nearest whole number.

- ○ 42.7 [43]
- ○ 128.2 [128]
- ○ 90.5 [91]

Read to the child: Compare each pair of decimal numbers using a greater than or less than symbol.

- ○ 24.53 [>] 23.58
- ○ 41.8 [>] 41.08

Part C: Multiplication & Long Division

Point to the Part C box on page 3. Read to the child: Complete each problem in this box.

- ○ 40,000 × 5 = [200,000]
- ○ 41 × 23 = [943]
- ○ 345 × 13 = [4,485]
- ○ 547 ÷ 4 = [136 R3]
- ○ 5,212 ÷ 4 = [1,303]
- ○ 2,688 ÷ 12 = [224]

The items listed below are not assessed in this placement test. It is expected that the child knows these concepts before starting *Simply Good and Beautiful Math 5*.

- 3D shapes (cube, cone, cylinder, sphere, rectangular prism, pyramid)
- Tell time to the nearest minute
- The difference between AM and PM
- Write numbers in expanded form and word form
- Multi-digit addition and subtraction with regrouping
- Multiplication facts up to 12 × 12
- Common measurement conversions (12 inches = 1 foot, 3 feet = 1 yard, etc.)

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Part D: Fractions

Point to the Part D box on page 4. Read to the child: Find the fraction of each set. You can use the image to help find the answer.

- ○ $\frac{1}{2}$ of 20 [10]
- ○ $\frac{3}{4}$ of 20 [15]
- ○ $\frac{4}{5}$ of 20 [16]

Read to the child: Change each improper fraction to a mixed number.

- ○ $\frac{12}{5}$ [$2\frac{2}{5}$]
- ○ $\frac{9}{4}$ [$2\frac{1}{4}$]

Read to the child: Look at the problems listed at the bottom of the box. Add or subtract the fractions or mixed numbers.

- ○ $\frac{3}{5} - \frac{3}{10}$ = [$\frac{3}{10}$]
- ○ $\frac{3}{8} + \frac{1}{4}$ = [$\frac{5}{8}$]
- ○ $3\frac{1}{2} + 4\frac{1}{4}$ = [$7\frac{3}{4}$]

Part E: Factors, Multiples & Order of Operations

Point to the Part E box on page 4. Read to the child: List the factors of the blue numbers and list 10 multiples of the red numbers.

FACTORS:

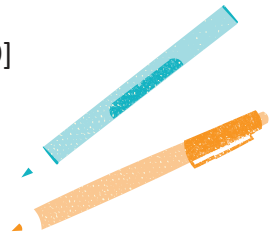
- ○ 12 [1, 2, 3, 4, 6, 12]
- ○ 24 [1, 2, 3, 4, 6, 8, 12, 24]

MULTIPLES:

- ○ 6 [6, 12, 18, 24, 30, 36, 42, 48, 54, 60]
- ○ 8 [8, 16, 24, 32, 40, 48, 56, 64, 72, 80]

Point to the bottom half of the box. Read to the child: Complete each problem using the order of operations.

- ○ 8 + (7 × 2) = [22]
- ○ 8 × 7 + 8 − 5 = [59]
- ○ (8 × 3) ÷ 2 = [12]
- ○ 3^2 + 5 − 3 = [11]



Part F: Elapsed Time, Geometry & Measurement

Point to the Part F box on page 5. Read to the child: Using each pair of digital clocks shown, write how much time has passed from the clock on the left to the clock on the right.

- ○ 8:42 AM to 10:08 AM [1 hour 26 minutes]
- ○ 1:25 PM to 6:39 PM [5 hours 14 minutes]

Point to the blank space at the top of the box. Read to the child: Draw each geometric figure that I say aloud. If the child draws an incorrect figure, help the child draw the correct figure before moving on.

- ○ point •
- ○ horizontal line ↔
- ○ line segment •—•
- ○ ray •→
- ○ parallel lines ⇉
- ○ perpendicular lines ✛
- ○ acute angle ∠
- ○ obtuse angle ∠
- ○ right angle ∟
- ○ vertical line ↕

Read to the child: Find the perimeter and area of each 2D shape and the volume of the 3D shape.

- ○ rectangle perimeter = [36] cm; area = [72] sq cm
- ○ triangle perimeter = [16] in; area = [12] sq in
- ○ rectangular prism volume = [315] cubic cm

Read to the child: Measure the top line segment to the nearest half inch and the bottom line segment to the nearest quarter inch.

- ○ top line segment [$8\frac{1}{2}$ inches]
- ○ bottom line segment [$5\frac{1}{4}$ inches]

Number of correct responses

There are 60 points possible for this test. If the score is 48 or more, the child is ready to begin *Simply Good and Beautiful Math 5*. If the score is 47 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math 5* reviews all the concepts assessed in this placement test.

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Part A

371,751,248

_____ ten millions

_____ millions

_____ hundred thousands

_____ hundred millions

39,715,624 ☐ 39,717,842

2,674,824 ☐ 677,917

347,231,985	greatest
347,287,104	
347,234,765	least

Part B

ten and thirty-three hundredths
four and five tenths
seven and five hundred eighty-nine thousandths
twenty-one and six hundredths

$$\begin{array}{r} 0.75 \\ +\ 57.80 \\ \hline \end{array} \qquad \begin{array}{r} 287.150 \\ -\ 6.724 \\ \hline \end{array} \qquad \begin{array}{r} 182 \\ \times\ 3.4 \\ \hline \end{array}$$

42.7 → _____

128.2 → _____

90.5 → _____

24.53 ☐ 23.58

41.8 ☐ 41.08

Part C

40,000 × 5 = ☐

$$\begin{array}{r} 41 \\ \times\ 23 \\ \hline \end{array}$$

$$\begin{array}{r} 345 \\ \times\ 13 \\ \hline \end{array}$$

$4\overline{)547}$

$4\overline{)5{,}212}$

$12\overline{)2{,}688}$

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Part D

$\frac{1}{2}$ of 20 = ____

$\frac{3}{4}$ of 20 = ____

$\frac{4}{5}$ of 20 = ____

$\frac{12}{5}$ = ____

$\frac{9}{4}$ = ____

$\frac{3}{5} - \frac{3}{10}$ = ____

$\frac{3}{8} + \frac{1}{4}$ = ____

$3\frac{1}{2} + 4\frac{1}{4}$ = ____

Part E

12 _____

24 _____

6 _____

8 _____

$8 + (7 \times 2)$ = ____

$8 \times 7 + 8 - 5$ = ____

$(8 \times 3) \div 2$ = ____

$3^2 + 5 - 3$ = ____

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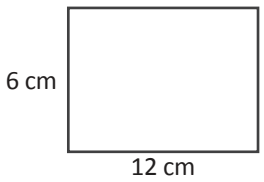
Part F

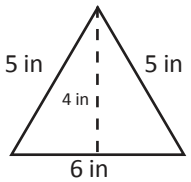
Elapsed Time

Elapsed Time



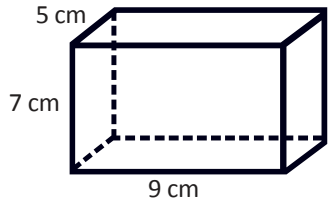
perimeter = _____ cm

area = _____ sq cm

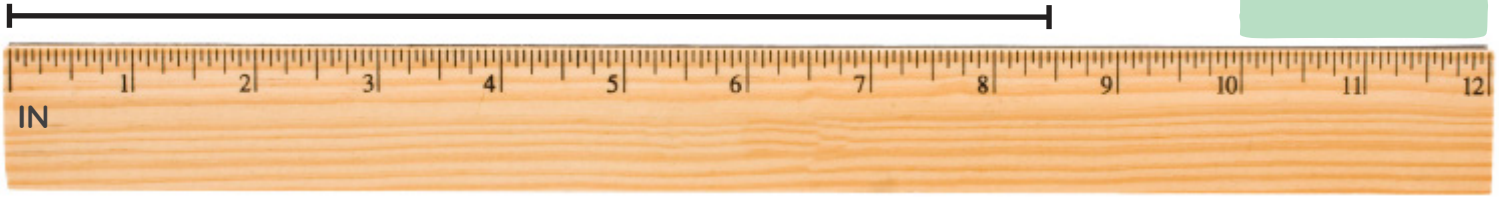


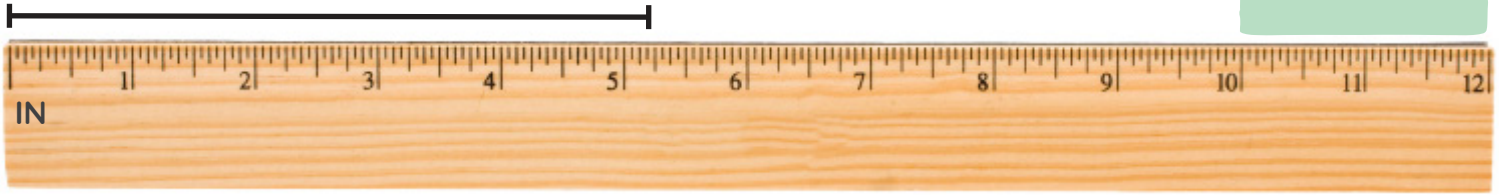
perimeter = _____ in

area = _____ sq in



volume = _____ cubic cm





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SIMPLY GOOD AND BEAUTIFUL MATH 6
Placement Test

Supplies Needed

protractor scratch paper

This placement test assesses a child's readiness to begin *Simply Good and Beautiful Math 6*. The first three pages are for the parent/teacher to record the child's score and include the test instructions. Blue text is instruction to the parent/teacher. Black text is read to the child. The last two pages should be given to the child when ready to begin. To record the child's scores, place a check mark for each correct response in the circle by each question on the parent/teacher pages. The answer for each question can be found in brackets. After the child completes the assessment, write the total number of check marks in the box at the bottom of page 3.

Part A: Fractions, Decimals, and Percents

Point to the Part A box on page 4. Read to the child: Order the fractions shown from least to greatest.

○ $\frac{2}{5}$ [least] ○ $\frac{5}{9}$ ○ $\frac{4}{7}$ [greatest]

Read to the child: Order the decimal numbers shown from least to greatest.

○ 1.298 [least] ○ 12.079 ○ 12.55 [greatest]

Read to the child: In the next section, round each of the numbers to the nearest whole number.

○ $1\frac{4}{7}$ [2] ○ $\frac{2}{5}$ [0] ○ 13.7 [14]

Read to the child: Round the decimal number shown to each place value listed.

○ tenth [12.1]

○ thousandth [12.079]

Read to the child: In the second column, fill in the table to convert between fractions, decimals, and percents.

Fraction	Decimal	Percent
$\frac{9}{20}$	○ [0.45]	○ [45%]
○ [$\frac{3}{4}$]	○ [0.75]	75%
○ [$\frac{2}{1}$]	2	○ [200%]

Read to the child: Fill in the next table to convert between improper fractions and mixed or whole numbers.

Improper Fraction	Mixed/Whole Number
$\frac{15}{4}$	○ [$3\frac{3}{4}$]
$\frac{24}{3}$	○ [8]
○ [$\frac{5}{2}$]	$2\frac{1}{2}$

Part B: Factors and Multiples

Point to the Part B box on page 4 and read to the child: List all factors of 6 and 33 on the first two lines and find their greatest common factor.

○ 6: [1, 2, 3, 6 (order does not matter)]

○ 33: [1, 3, 11, 33 (order does not matter)]

○ GCF of 6 and 33: [3]

Read to the child: List the first nine multiples of 8 and 7 on the next two lines and find their least common multiple.

○ 8: [8, 16, 24, 32, 40, 48, 56, 64, 72]

○ 7: [7, 14, 21, 28, 35, 42, 49, 56, 63]

○ LCM of 8 and 7: [56]

Read to the child: Use the distributive property to rewrite the problem in the bottom of the box. You don't have to solve it.

$5(20-7)=$

○ [$5\cdot20-5\cdot7$ or $100-35$]

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Part C: Measurement, Time, and Probability

Point to the Part C box on page 4.
Read to the child: Use the conversions given to fill in the blanks.

- 2,500 cm = [25] m
- 27 in = $\left[2\frac{1}{4} \text{ or } 2.25\right]$ ft

Read to the child: Use the arrival time of a flight and the flight duration to determine the departure time. Circle whether the departure time is AM or PM.

- departure time [3:23 AM]

Read to the child: Suppose a standard 6-sided die is rolled. Find the probability of each event listed in the bottom of the box.

- probability of rolling an even number: $\left[\frac{1}{2}\right]$
- probability of rolling a 3: $\left[\frac{1}{6}\right]$

Part D: Arithmetic Fluency and Order of Operations

Point to the Part D box on page 5. Read to the child: Complete the problems in this section. Write each answer in simplest form.

- $\frac{1}{2}+\frac{1}{3}=\left[\frac{5}{6}\right]$
- $3\frac{1}{4}-1\frac{3}{7}=\left[1\frac{23}{28}\right]$
- $1\frac{1}{6}\div\frac{3}{4}=\left[1\frac{5}{9}\right]$
- $12\div180=\left[0.0\overline{6} \text{ or } \frac{1}{15}\right]$
- $5.3 \bullet 1.24 = [6.572]$
- $12.948 + 3.12 = [16.068]$
- What is 15% of 80? [12]
- What is $\frac{2}{7}$ of 35? [10]
- $3.4 \bullet 10^3 = [3{,}400]$
- $0.0027 \bullet 10^6 = [2{,}700]$
- $5 \div 10^4 = [0.0005]$

Read to the child: Use the order of operations to complete the problems in the bottom of this column.

- $3^2(2+5)=[63]$
- $-5+\frac{(4^2-1)}{3}=[0]$

Part E: Geometry and Coordinate Planes

Point to the Part E box on page 5.
Read to the child: Fill in the missing side lengths on the figure at the top of the box.

- left side [4 cm]
- top side [4 cm]

Read to the child: Draw an angle that measures 40 degrees. Then classify the angle as acute, right, or obtuse.

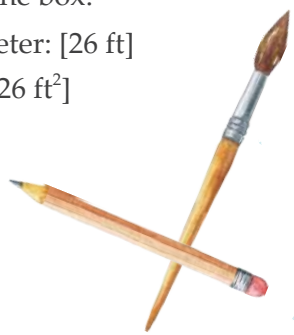
- 40° angle: [ ]
- type of angle: [acute]

Read to the child: Suppose a square has a perimeter of 20 centimeters. Find the area of the square.

- area: [25 cm^2]

Read to the child: Find the perimeter and area of the irregular figure at the bottom of the box.

- perimeter: [26 ft]
- area: [26 ft^2]



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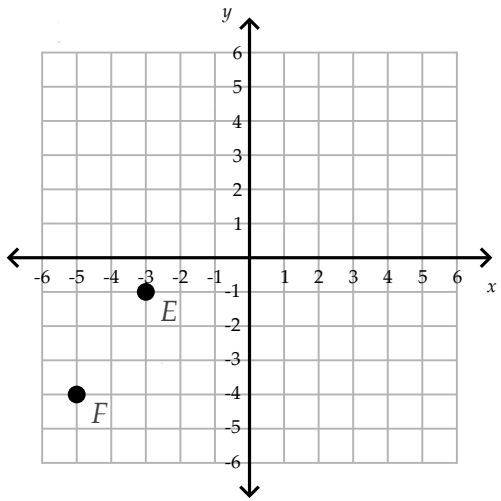
Part E: Geometry and Coordinate Planes continued

Read to the child: Look at the coordinate plane at the top of the last column. Write the coordinates of the points shown.

- Point *A*: $[(4,1)]$
- Point *B*: $[(-2,5)]$
- Point *C*: $[(3,-3)]$
- Point *D*: $[(0,0)]$

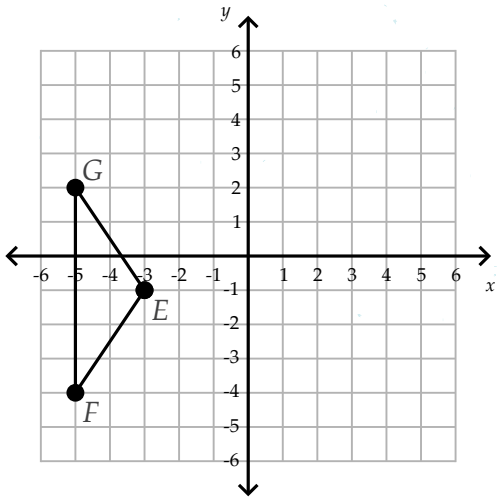
Read to the child: Plot and label Points *E* and *F* on the next coordinate plane.

- Point *E* [see image below]
- Point *F* [see image below]



Read to the child: Plot and label Point *G* in the second quadrant so that triangle *EFG* has a horizontal line of symmetry. Connect the points to create a triangle. Write the coordinates of Point *G* on the line.

- Point *G* [see image below]
- Point *G*: $[(-5,2)]$



Number of correct responses

There are 60 points possible for this test. If the score is 48 or more, the child is ready to begin *Simply Good and Beautiful Math 6*. If the score is 47 or less, it is recommended to review the concepts the child has not yet mastered before beginning the course.

Although it is encouraged that the child have these important concepts mastered, *Simply Good and Beautiful Math 6* reviews all the concepts assessed in this placement test.

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Part A

$\frac{4}{7}, \frac{2}{5}, \frac{5}{9}$ _____ (least), _____, _____ (greatest)

12.079, 12.55, 1.298

_____ (least), _____, _____ (greatest)

$1\frac{4}{7} \longrightarrow$ _____

$\frac{2}{5} \longrightarrow$ _____

$13.7 \longrightarrow$ _____

12.0793

_____ tenth

_____ thousandth

Fraction	Decimal	Percent
$\frac{9}{20}$		
		75%
	2	

Improper Fraction	Mixed/Whole Number
$\frac{15}{4}$	
$\frac{24}{3}$	
	$2\frac{1}{2}$

Part B

6: _____

33: _____

GCF of 6 and 33: _____

8: _____

7: _____

LCM of 8 and 7: _____

$5(20-7) =$ _____

Part C

1 m = 100 cm 2,500 cm = _____ m

1 ft = 12 in 27 in = _____ ft

_____ (departure time) AM/PM $\xrightarrow{\text{13 hr 22 min (duration)}}$ 4:45 PM (arrival time)

probability of rolling an even number:

probability of rolling a 3:

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Part D

$\frac{1}{2}+\frac{1}{3}=$

$3\frac{1}{4}-1\frac{3}{7}=$

$1\frac{1}{6}\div\frac{3}{4}=$

$12\div 180=$

$5.3\bullet 1.24=$

$12.948+3.12=$

What is 15% of 80?

What is $\frac{2}{7}$ of 35?

$3.4\bullet 10^{3}=$

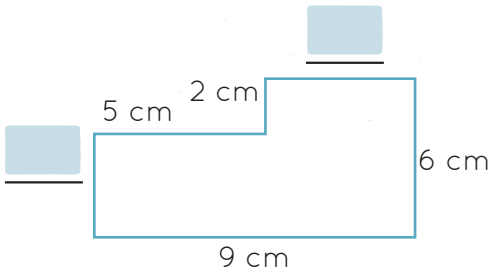
$0.0027\bullet 10^{6}=$

$5\div 10^{4}=$

$3^{2}(2+5)=$

$-5+\frac{(4^{2}-1)}{3}=$

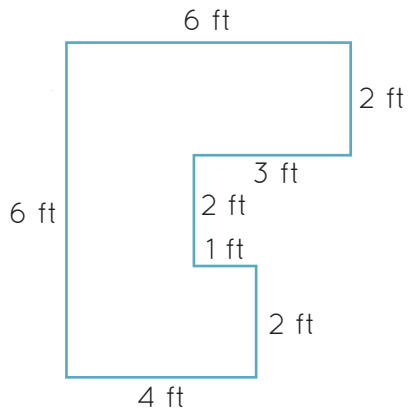
Part E



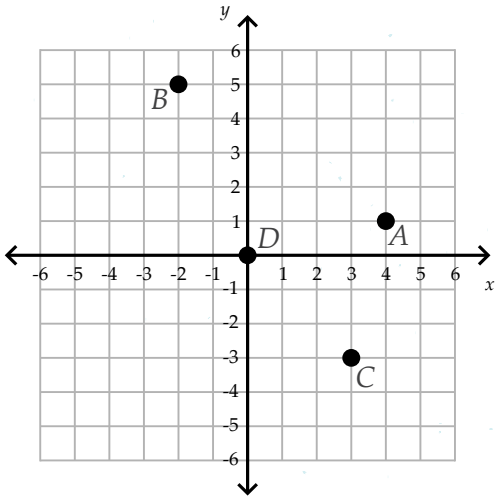
40° angle:

type of angle: _____

area of square: _____



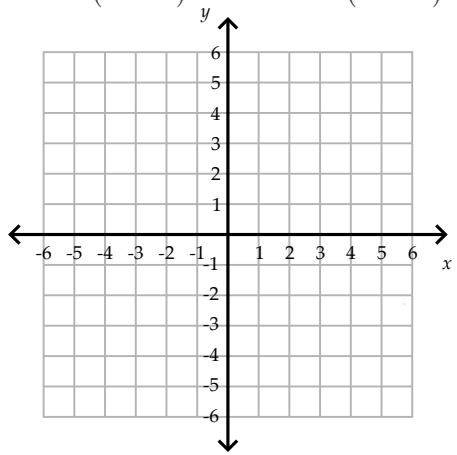
perimeter: _____ area: _____



Point *A*: _____ Point *B*: _____

Point *C*: _____ Point *D*: _____

Point *E*: $(-3,-1)$ Point *F*: $(-5,-4)$



Point *G*: _____

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MATH 7

PLACEMENT TEST

Parent/Teacher Instructions

This placement test assesses the student's readiness to begin *Simply Good and Beautiful Math 7*. The student is to complete this test independently. The first two pages are for the parent/teacher to check the student's answers and record the score. The last three pages are the assessment and should be given to the student when ready. Instruct the student to complete any work on scratch paper and write the answer to each problem on the lines provided. A calculator should only be used on the problems where the assessment indicates.

An answer key (second page) is provided to check the student's responses. To score, place a check mark for each correct response in the circle next to each answer line on the student assessment. Write the total number of check marks in the box at the right.

SUPPLIES NEEDED:

scratch paper, blue and yellow colored pencils or highlighters, calculator

Scoring the Placement Test

There are 58 points possible for this test. If the score is 46 or greater, the student is ready to begin *Simply Good and Beautiful Math 7*. If the score is 45 or less, it is recommended to review the concepts the student has not yet mastered before beginning the course.

Although it is recommended that the student has mastered these important concepts, *Simply Good and Beautiful Math 7* reviews all the concepts assessed in this placement test.

Total number of check marks: ☐

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Answer Key

Part A

1. $-1\frac{1}{2}, -\frac{1}{3}, \frac{1}{2}, \frac{2}{3}, 1\frac{1}{3}, \frac{11}{3}$

2. a. $\frac{29}{35}$ b. 1 c. $3\frac{3}{4}$ d. $\frac{5}{9}$

3. 2.005, 2.035, 2.05, 2.075, 2.105, 2.5

4. a. 11.41 b. 9.63 c. 5.12 d. 3.12

5. a. 0.2 b. 0.35

6. a. $\frac{1}{20}$ b. $\frac{1}{8}$

7. a. 7% b. 123% c. $133.\overline{3}\%$ d. 115%

8. a. 0.56 b. 0.22 c. 1.4

9. a. 54 b. 49.5

10. a. 128 b. 20

11. a. 68 b. –8

12. a. –10 b. –26 c. –4 d. –15

Part B

13. a. $x = 12$ b. $x = -50$

14. Number of terms: 5
Coefficients: 28, –15, 1, –3
Constants: 25
Simplified expression: $13b - 2a + 25$

15. GCF: 21
LCM: 210

16. a. 125 b. 9 c. –32

17. $(7 \cdot 10^6) + (4 \cdot 10^5) + (3 \cdot 10^4) + (5 \cdot 10^3) + (2 \cdot 10^1) + (1 \cdot 10^0)$

18. a. 5 b. –4 c. 10

Part C

19. right, scalene

20. a. no b. yes

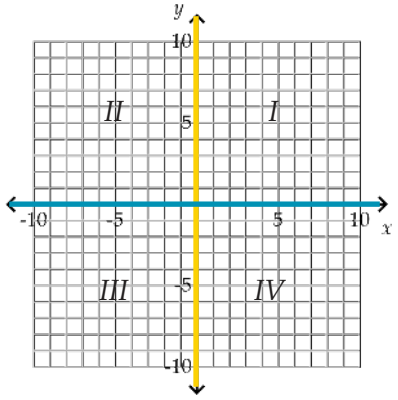
21. $A = 12 \text{ m}^2$

22. $A = 50.24 \text{ cm}^2$

23. $P = 12.85 \text{ in}$

24. $C = 12.56 \text{ ft}$

25.



26. $b = 7 \text{ mm}$ $P = 92 \text{ mm}$

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PART A ARITHMETIC

1. Order the fractions from least to greatest.

$\frac{1}{2}, \frac{2}{3}, 1\frac{1}{3}, \frac{11}{3}, -\frac{1}{3}, -1\frac{1}{2}$

○ _____

2. Perform the indicated operation. Write each answer in simplest form.

a. $\frac{2}{5}+\frac{3}{7}$

○ _____

b. $1\frac{2}{3} \bullet \frac{3}{5}$

○ _____

c. $5\frac{1}{2}-1\frac{3}{4}$

○ _____

d. $\frac{5}{6} \div \frac{3}{2}$

○ _____

3. Order the decimals from least to greatest.

2.5, 2.05, 2.105, 2.035, 2.075, 2.005

○ _____

4. Perform the indicated operation.

a. $6.78 + 4.63$

○ _____

b. $12.85 - 3.22$

○ _____

c. $1.6 \bullet 3.2$

○ _____

d. $6.24 \div 2$

○ _____

5. Write each fraction as a decimal.

a. $\frac{1}{5}$

○ _____

b. $\frac{21}{60}$

○ _____

6. Write each decimal as a fraction in simplest form.

a. 0.05

○ _____

b. 0.125

○ _____

7. Write each fraction or decimal as a percent.

a. 0.07

○ _____

b. 1.23

○ _____

c. $1\frac{1}{3}$

○ _____

d. $\frac{23}{20}$

○ _____

8. Write each percent as a decimal.

a. 56%

○ _____

b. 22%

○ _____

c. 140%

○ _____

9. Find the percent of the number.

a. 15% of 360

○ _____

b. 110% of 45

○ _____

10. Divide.

a. $1024 \div 8$

○ _____

b. $36 \div 1.8$

○ _____

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PART A CONTINUED

11. Simplify using the order of operations.

a. $3(7-2)^2 - 14 \div 2$

○ _____

b. $9 \bullet 6 - 4^3 + 12 \div 6$

○ _____

12. Perform the indicated operation.

a. $-3 + (-7)$

○ _____

b. $-2 \bullet 13$

○ _____

c. $16 - 20$

○ _____

d. $45 \div (-3)$

○ _____

PART B ALGEBRA

13. Solve each equation.

a. $4.5x = 54$

○ _____

b. $x + 45 = -5$

○ _____

14. Write the number of terms in the expression. Identify the coefficients and the constants. Then simplify the expression.

$$28b - 15b + a + 25 - 3a$$

○ Number of terms: _____

○ Coefficients: _____

○ Constants: _____

○ Simplified expression:

_____

15. Find the greatest common factor (GCF) and the least common multiple (LCM) of 42 and 105.

○ GCF: _____

○ LCM: _____

16. Evaluate each power.

a. 5^3

○ _____

b. 3^2

○ _____

c. $(-2)^5$

○ _____

17. Write the number in expanded notation with exponents.

7,435,021

○ _____

_____

_____

18. Evaluate each root.

a. $\sqrt{25}$

○ _____

b. $\sqrt[3]{-64}$

○ _____

c. $\sqrt{100}$

○ _____

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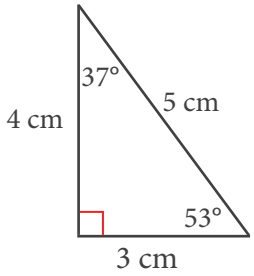
PART C GEOMETRY

19. Classify the triangle by its angle measures and by its side lengths.
Note: Angle measures shown are approximate.



By angle measures:

○ _____

By side lengths:

○ _____

20. Determine if each set of angles can be the interior angles of a triangle. Write *yes* or *no* on the line.

a. 38°, 22°, 30°

○ _____

b. 73°, 29°, 78°

○ _____

21. Find the area of a triangle with a height of 6 meters and a base length of 4 meters.

○ $A =$ _____

Questions 22–24 will require the use of one of the formulas below. Use 3.14 for π. A calculator may be used for these problems.

$$A = \pi r^2 \qquad C = \pi d$$

22. Find the area of a circle with a radius of 4 centimeters.

○ $A =$ _____

23. Find the perimeter of a semicircle with a diameter of 5 inches.

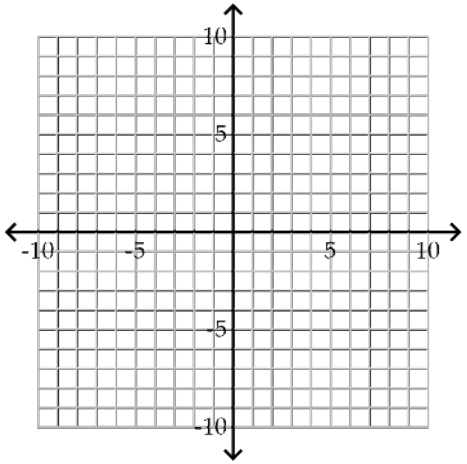
○ $P =$ _____

24. Find the circumference of a circle with a radius of 2 feet.

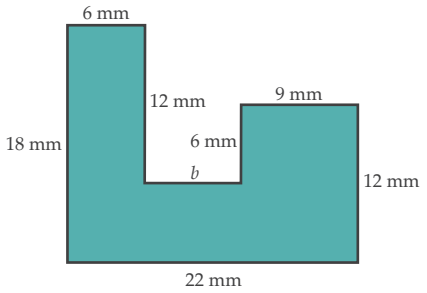
○ $C =$ _____

25. ○ Highlight the *x*-axis in blue and the *y*-axis in yellow.

○ Label the quadrants with *I*, *II*, *III*, and *IV*.



26. Find the value of *b*. Then find the perimeter of the composite figure.



○ $b =$ _____ ○ $P =$ _____

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PRE-ALGEBRA

PLACEMENT TEST

SUPPLIES NEEDED:
scratch paper, calculator

Parent/Teacher Instructions

This placement test assesses the student's readiness to begin *Simply Good and Beautiful Pre-Algebra*. The student is to complete this test independently. The first two pages are for the parent/teacher to check the student's answers and record the score. The last three pages are the assessment and should be given to the student when ready. Instruct the student to complete any work on scratch paper and write the answer to each problem on the lines provided. A calculator should only be used on the problems that have the symbol shown below.

An answer key (second page) is provided to check the student's responses. To score, place a check mark for each correct response in the circle next to each answer line on the student assessment. Write the total number of check marks in the box at the right.

Scoring the Placement Test

There are 48 points possible for this test. If the score is 38 or greater, the student is ready to begin *Simply Good and Beautiful Pre-Algebra*. If the score is 37 or less, it is recommended to review the concepts the student has not yet mastered before beginning the course.

Although it is recommended that the student has mastered these important concepts, *Simply Good and Beautiful Pre-Algebra* reviews all the concepts assessed in this placement test.

Total number of check marks: ☐

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Answer Key

Part A

1. a. –6
   b. –17
   c. 14.4
   d. –4

2.

Fraction	Decimal	Percent
$1\frac{1}{4}$	1.25	125%
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{5}$	0.2	20%

3. a. 4.32
   b. 20%
   c. 25

4. 2.3×10^6

5. 340,000,000

6. a. no
   b. yes

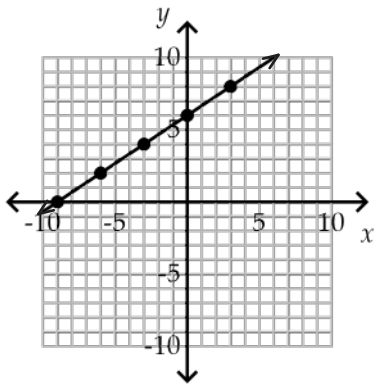
Part B

7. a. 27 b. –49 c. 49
   d. 6 e. –3 f. 5

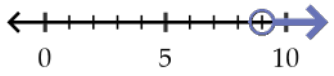
8. $6x^2 - x + 3$

9. $x = 11$

10. Slope: –4
    y-intercept: $(0,13)$

11. 

12. $x > 9$



13. $15 + 6x$

Part C

14. $a = 60°$ $b = 120°$

15. 108°

16. 24.5 cm^2

17. Area: 78.5 cm^2
    Circumference: 31.4 cm

18. 17.71 in

19. 90 in^2

20. 602.88 mm^3

Part D

21. a. 6 b. 7
    c. 3 d. 7

22. a. $\frac{3}{20}$ b. $\frac{5}{20} = \frac{1}{4}$
    c. $\frac{4}{20} = \frac{1}{5}$ d. $\frac{8}{20} = \frac{2}{5}$

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PART A ARITHMETIC

1. Perform the indicated operations. Write each answer in simplest form.

   a. $-3 \cdot 7 + 15$ ○ _____

   b. $3.4 \div (-0.2)$ ○ _____

   c. $10.4 - 32 \div (-8)$ ○ _____

   d. $\dfrac{-\frac{4}{3}}{\frac{1}{3}}$ ○ _____

2. Complete each row to convert between fractions, decimals, and percents. Write fractions in simplest form.

Fraction	Decimal	Percent
○	○	125%
○	0.125	○
$\frac{1}{5}$	○	○

3. Complete the percent problems.

   a. What is 18% of 24?

   ○ _____

   b. 15 is what percent of 75?

   ○ _____

   c. What is 10% of 250?

   ○ _____

4. Write the number in scientific notation.

   2,300,000

   ○ _____

5. Write the number in standard form.

   3.4×10^8

   ○ _____

6. Determine if the ratios are proportional. Write "yes" or "no."

   a. $\frac{3}{4}$ and $\frac{7}{8}$ ○ _____

   b. $\frac{5}{3}$ and $\frac{20}{12}$ ○ _____

PART B ALGEBRA

7. Evaluate.

   a. 3^3 ○ _____

   b. -7^2 ○ _____

   c. $(-7)^2$ ○ _____

   d. $\sqrt{36}$ ○ _____

   e. $\sqrt[3]{-27}$ ○ _____

   f. $\sqrt[3]{125}$ ○ _____

8. Simplify the expression by combining like terms.

   $4x^2 + 5x - 6x + 2x^2 + 3$

   ○ _____

9. Solve for x.

   $4x - 10 = 34$

   ○ _____

10. Identify the slope and y-intercept for the linear equation.

    $y = -4x + 13$

    ○ Slope: _____

    ○ y-intercept: _____

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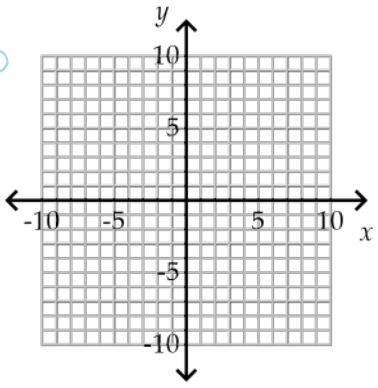
PART B CONTINUED

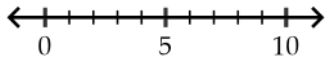
11. Graph $y = \frac{2}{3}x + 6$.



12. Solve and graph the inequality.

$$2x > 18$$

_____



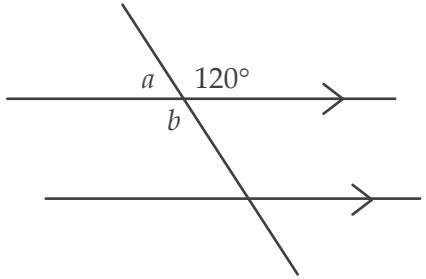
13. Use the distributive property to simplify the expression.

$$3(5 + 2x)$$

_____

PART C GEOMETRY

14. Find the missing angle measures.

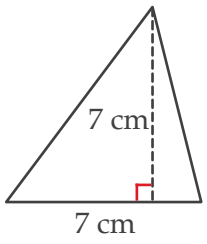


$a =$ _____ $b =$ _____

15. The interior angle sum of a regular pentagon is 540°. Find the measure of one interior angle.

_____

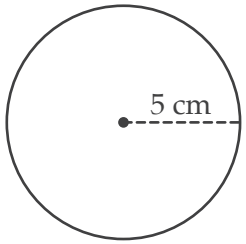
16. Find the area of the triangle.



_____

17. Find the area and circumference of the circle using the formulas provided. Use 3.14 for the value of pi.

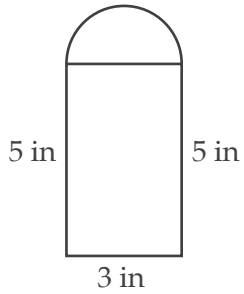
$A = \pi r^2$ $C = 2\pi r$



Area: _____

Circumference: _____

18. Find the perimeter of the figure. Use 3.14 for the value of pi.



_____

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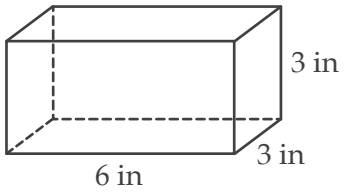
PART C CONTINUED

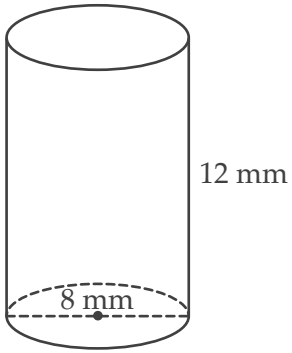
19. Find the surface area of the rectangular prism.



○ _____

20. Find the volume of the cylinder using the formula provided. Use 3.14 for the value of pi.

$V = \pi r^2 h$



○ _____

PART D STATISTICS AND PROBABILITY

21. Calculate the measures of central tendency and range of the data set.

3, 3, 3, 4, 7, 7, 8, 9, 10

a. Mean: ○ _____

b. Median: ○ _____

c. Mode: ○ _____

d. Range: ○ _____

22. A bag holds the following 20 marbles: 3 red, 5 blue, 8 white, and 4 yellow. Find the probability of each scenario.

a. drawing a red marble ○ _____

b. drawing a blue marble ○ _____

c. drawing a yellow marble ○ _____

d. drawing a white marble ○ _____

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