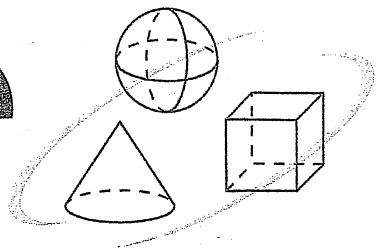
Welcome!

Simple Solutions.



Minutes a Day—Mastery for a Lifetime!

Dear Student:

This workbook will give you the opportunity to practice skills you have learned in previous grades. By practicing these skills each day, you will gain confidence in your math ability.

Using this workbook will help you understand math concepts more easily. For many of you, using Simple Solutions will give you a more positive attitude towards math in general.

In order for this program to help you be successful, it is extremely important that you do a lesson every day. It is also important that you check your answers and ask your teacher for help with the problems you didn't understand or that you did incorrectly.

Simple Solutions: Minutes a day—Mastery for a Lifetime!

When you are finished with this book, please recycle it if you can.

Lesson #20

1. Brendan has $24 and he wants to buy a video game that costs $49. How much more does he need? Write and solve an equation where m is the money Brendan needs.

2. When is the product of two integers positive?

3. Al uses $\frac{3}{4}$ cup of tomatoes to make $\frac{1}{2}$ container of tossed salad. How much is needed to make a full container of salad? Write your answer as a mixed number.

4. The surface area of a cube is 384 ft^2. Find the volume of the cube.

5. Evamarie is riding a go-kart and going 7 mph. She is traveling one-fifth the speed of her sister Giovanna. Write and solve a division equation to find out how fast Giovanna is going.

6. Lupita's car engine is leaking oil. She began with 5 quarts but lost $\frac{1}{2}$ quart yesterday. She added $\frac{1}{4}$ quart today. Which equation shows this? Solve the equation to show much oil is left in Lupita's car engine.

7. Use the properties of addition to simplify $10v - 4s - 6v + 8s$.

8. During the flu epidemic, 98 of 392 middle school students were absent on a single day. What percent of the students were absent?

9. Owen recorded the height of his high jumps during the season's track meets. Identify the median, mode, and range of the data.

10. A third grader has a goal of solving 100 math facts in 5 minutes (or 300 seconds). How many seconds can he spend on each math fact? Give a unit rate in seconds per fact.

11. At a theme park, the ticket price for children is c and the ticket price for adults is $17 more than that. Write an expression to show the cost of tickets for 2 adults and 5 children. Simplify the expression.

12. Graph $x < -4$ on the number line.

1.

6.EE.5

2.

7.NS.2

3.

7.RP.1

4.

7.G.6

5.

6.EE.7

6.

7.NS.1

A) $5+\frac{1}{2}+\frac{1}{4}=?$

B) $5+(-\frac{1}{2})+\frac{1}{4}=?$

C) $5-\frac{1}{2}-\frac{1}{4}=?$

7.

7.EE.1

8.

6.RP.3

9.

3'7"	4'3"	4'8"	4'7"	4'6"	4'8"	4'8"	4'9"	3'11"	4'7"	4'10"

6.SP.5

median:

mode:

range:

10.

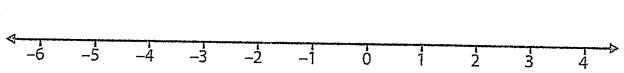
6.RP.2

11.

6.EE.6

12.

6.EE.8



Lesson #21

1. Annie purchased a season pass for the new aquarium at a cost of $110. If she uses the pass 10 times this year, what is the unit rate in cost per visit?

2. **If quantities are in a proportional relationship, the ratios are equivalent to each other.** The table shows the cookie sales by one scout troop. Compare the ratios. Are the data proportional?

3. Expand this expression by using the distributive property. $5(2k-7)$

4. What is the value of x in this equation? $x+0=-11$

5. $24.6 \div 0.03 = ?$

6. Simplify this complex fraction. $\dfrac{\frac{1}{9}}{\frac{5}{6}}$

7. When is the product of two integers negative?

8. Mr. Paul always leaves a 20% tip on his food bill at a restaurant. If Mr. Paul's food bill is $36.00, what will the 20% tip be?

9. The dimensions of a rectangular prism are 5 cm, 6 cm, and x cm. Its surface area is 148 cm^2. Find the other dimension.

10. Simplify each expression. Which expressions are equivalent?
    A) $16p+24q+32$ B) $8(2p+3q+4)$ C) $4(4p+24q+8)$

11. Write an equation that means "the product of 5 and a number (t), less 15, is 25."

12. Kevin has $\frac{5}{8}$ pound of cooked rice. Each serving of his rice pilaf recipe uses $\frac{1}{4}$ pound of cooked rice. How many servings can Kevin make with the rice he has?

1.

6.RP.2

2.

7.RP.2

# of Scouts in troop (x)	Cases sold (y)
4	$\frac{1}{2}$
16	2
20	2.5

3.

7.EE.1

4.

7.NS.1

5.

6.NS.3

6.

7.RP.1

7.

7.NS.2

8.

6.RP.3

9.

7.G.6

10.

6.EE.4

11.

6.EE.5

12.

6.NS.1

Lesson #22

1. **When two factors have the same sign, the product is positive.**
   Example: $-2 \times -3 = 6$
   Find the product of -3×-3.

2. Together, Sarah and Max brought in 24 cookies to share with the class. Sarah brought in 7 cookies. Write an addition equation to find out how many cookies Max brought in.

3. An investor receives a percentage of a new company's yearly earnings. If the company earned $250,000 this year, and the investor received $37,500, what percentage is that?

4. Find the surface area of the prism.

5. Restate $15 + (-3)$ by applying the commutative property.

6. Gabby earned $30 for shoveling 3 driveways. How much did she get for each driveway? Write and solve an equation where m is the amount of money Gabby earned per driveway.

7. $0.004 \times 0.06 = ?$

8. Factor this expression by dividing by the GCF first. $49t + 14$

9. Paco hikes a steep and rocky hill. If he travels $\frac{1}{5}$ of a mile in $\frac{2}{3}$ of an hour and maintains a constant speed, what is his distance per hour?

10. The oak tree in the back yard is 15 feet less than 3 times the height of the sapling. Write an expression to show how tall the oak tree is.

11. **If quantities are in a proportional relationship, the ratios are equivalent to each other.** Compare the ratios. Do they represent a proportional relationship?

12. The dot plot shows the number of goals scored during a soccer season. Identify the median, mode, and range of this data set.

1.

7.NS.2

2.

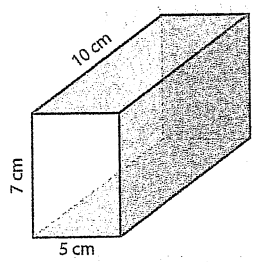
6.EE.7

3.

6.RP.3

4.

7.G.6



5.

7.NS.1

6.

6.EE.5

7.

6.NS.3

8.

7.EE.1

9.

7.RP.1

10.

6.EE.6

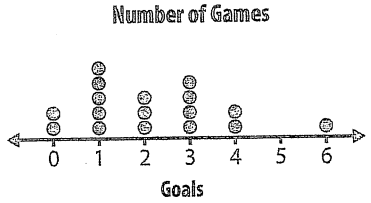
11.

7.RP.2

Pages Read	Minutes
2	10
4	20
5	25
7	30

12.

6.SP.5



median:

mode:

range:

Lesson #23

1. What property does this equation represent? $15 + (-15) = 0$

2. Use this expression to name each item. $7r^3 + 6r^2 - 3r - 8$

3. Write an equivalent expression for $4(4g - 6) - 7g$. Simplify the expression.

4. $157.2 - 78.3 = ?$

5. When two factors have the same sign, the product is (negative / positive). Circle the expressions that will have a positive product.

6. Marc has 3 fewer than 4 times the amount of ringtones than Melanie has. Write an expression to show how many ringtones Marc has. Let r represent the number of ringtones on Melanie's phone.

7. At Bargain Films, a guest can buy 6 movie tickets for $48.00. Give the unit rate in cost per ticket.

8. Find the volume of the triangular prism.

9. **When graphed on a coordinate plane, a proportional relationship always passes through the origin (0, 0) and all of the points lie on a straight line.** Study the graph. Does it represent a proportional relationship?

10. Joan planted 150 tulip bulbs, but only 20% of them bloomed. How many tulips bloomed?

11. Simplify this complex fraction. $\frac{\frac{8}{9}}{8}$

12. Which expression is equivalent to $9m - 15n + 3$?

A) $mn(9 - 15 + 3)$ B) $3(3m - 5n + 1)$ C) $3m(3 - 5n + 1)$

1. 7.NS.1

A) additive inverse property

B) commutative property

2. 6.EE.2

variable: _____

coefficients: _____

constant: _____

3. 7.EE.1

4. 6.NS.3

5. 7.NS.2

negative / positive

A) -4×8

B) 4×8

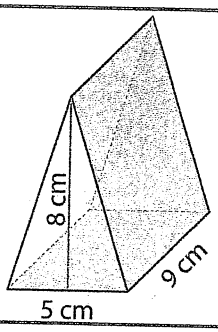
C) 4×-8

D) -4×-8

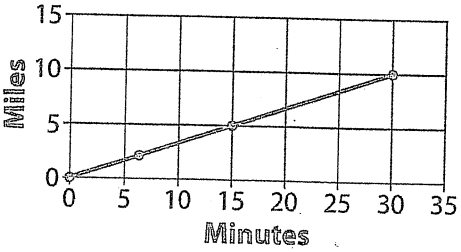
6. 6.EE.6

7. 6.RP.2

8. 7.G.6



9. 7.RP.2



10. 6.RP.3

11. 7.RP.1

12. 6.EE.4

Lesson #24

1. Anabeth has 8 pairs of earrings. If $\frac{3}{4}$ of the pairs are made of silver, how many pairs of silver earrings is that?

2. Study the data table. Graph the data to determine whether or not it represents a proportional relationship. If it does not, identify the point(s) that are not proportional (not on the line). The first line of a data table will always represent the x value and the second line will represent the y value.

	A	B	C	D
Jars (x)	½	1½	3	5
Pickles (y)	6	18	30	60

3. Sandy spent $78 on the purchase of 6 identical pairs of shoes for the cheerleaders. Write the unit rate in price per pair.

4. Write an equation to show "buying 2 boxes of crayons at $4.00 each."

5. Jenny bought a magazine and 2 books. Write an expression to show how much Jenny spent if the cost of each book was d dollars and the magazine cost $6.00.

6. $66.271 + 94.39 = ?$

7. What property does this equation represent? $-3 + 12 = 12 + (-3)$

8. If 5% of the eighth graders are in Honors English class, and there are 260 eighth graders, how many are in Honors English?

9. The volume of the prism is 960 mm^3. What is the length of y?

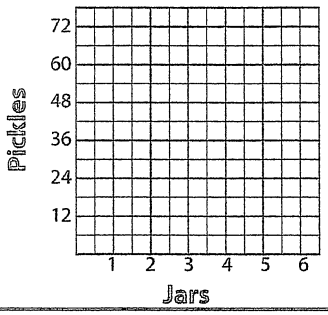
10. Study the average amount of snowfall, in inches, recorded for eight days at a ski resort's highest peak. Find the range, median, and mean.

11. Bruno thinks he factored the GCF correctly. Do you agree? Explain.
$12r + 18 = 3(4r + 6)$

12. During the recital, the pianist played for $\frac{1}{4}$ of an hour. This was $\frac{1}{8}$ of the concert. At this rate, how long did the concert last?

1. 7.NS.3

2. 7.RP.2



3. 6.RP.2

4. 7.NS.2

5. 6.EE.6

6. 6.NS.3

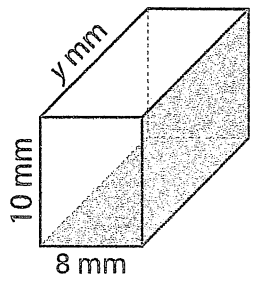
7. 7.NS.1

A) additive inverse property

B) commutative property

8. 6.RP.3

9. 7.G.6



10. 6.SP.5

17	9	0	22	14	4	16	2

range:

median:

mean:

11. 7.EE.1

12. 7.RP.1

Lesson #25

1. Simplify this complex fraction. $\dfrac{\frac{9}{10}}{\frac{3}{5}}$

2. Karen bought a pizza for \$11.95. She got back \$3.05 in change. Write a subtraction equation to find out how much money Karen had before she paid for the pizza.

3. **When graphed on a coordinate plane, a proportional relationship always passes through the origin (0, 0) and all of the points fall in a straight line.** Study the graph. Does it represent a proportional relationship?

4. $9.20 \div 0.04 = ?$

5. Simplify this expression. $6x + (-2x) + 2$
   Evaluate the expression if $x = 2$.

6. Branson's recreational vehicle uses 9 gallons of gas to travel 72 miles. On average, how many miles does Branson's RV get per gallon? Write the unit rate in miles per gallon.

7. Brian chewed $3\frac{1}{2}$ sticks of gum every day for 5 consecutive days. How many sticks of gum did he chew in that time?

8. Homeroom 2B sold 65 candy bars, or 26% of all the candy bars sold. How many candy bars were sold in all?

9. Match each equation with the property.
   A) $-18 + 6 = 6 + (-18)$
   B) $10 + (-10) = 0$

10. Write and solve an equation that means "a number (n) divided by 4, plus 3 is 7."

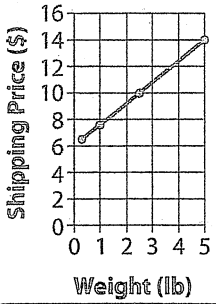
11. Solve. $-2 \times 5 = ?$ Choose the real-world context that matches this equation.

12. The dimensions of a rectangular prism are 12 cm, 4 cm, and k cm. Its volume is 240 cm^3. What is the measure of the other dimension?

1. 7.RP.1

2. 6.EE.7

3. 7.RP.2



4. 6.NS.3

5. 7.EE.1

6. 6.RP.2

7. 7.NS.3

8. 6.RP.3

9. 7.NS.1

_____ additive inverse property

_____ commutative property

10. 6.EE.5

11. 7.NS.3

A) Edwin lost $2 but found $5 on his way home.

B) Randy spent $2 for his school lunch every day this week.

12. 7.G.6

Lesson #26

1. Fill in the table to remind you what happens when you multiply integers.

2. The surface area of a cube is 864 in.^{2}. Find the volume of the cube.

3. Ski rental at Swinter Mountain resort is \$50, and s is the price of a lift ticket. Write an expression to show the cost of 3 lift tickets without ski rental and 2 lift tickets with ski rental. Simplify the expression.

4. If the temperature at the North Pole is $-10°$ F, how many degrees would the temperature have to increase for it to be 0°?

5. What is the range of this data set?

6. Liam used 14 cups of food to feed his 4 dogs. Each dog got the same amount of food. How much food did each dog get?

7. Use the properties of addition to simplify this expression. $p - 3p + 8 + 4p$

8. $3.6 \times 0.05 = ?$

9. Volunteer teams are collecting litter. The table shows the results by team. Compare the ratios. Are the data proportional?

10. In $\frac{1}{4}$ of a minute, Devon swam $\frac{1}{3}$ of his race. At that rate, how long did it take for him to complete the race?

11. Grave's Market sells 12 cans of window cleaner for \$75.00. Hank's Grocery sells 5 cans of the same brand for \$32. Give each store's unit rate in cost per can of window cleaner. Which store offers a lower unit rate?

12. McKenzie's goal is to score 15 baskets; she scored 11 so far. Write and solve an equation to find out how many more baskets McKenzie needs to meet her goal. Let b stand for the number of baskets needed.

1.

7.NS.2

×	+	−
+		
−		

2.

7.G.6

3.

6.EE.6

4.

7.NS.1

5.

6.SP.5

516	520	492	515	514	498	507	493

6.

7.NS.3

7.

7.EE.1

8.

6.NS.3

9.

7.RP.2

Team	# of volunteers	Pounds of litter collected
A	6	5
B	24	20
C	30	25
D	36	30

10.

7.RP.1

11.

6.RP.3

12.

6.EE.9

Lesson #27

1. Mario started with a zero balance on his library account. A book he borrowed was 7 days overdue, and he was charged $0.25 per day. Explain the current status of Mario's account.

2. The surface area of a rectangular prism is 408 m^2. Two of the dimensions are 9 m and 10 m. Find the measurement of the other dimension.

3. Use the number line to solve $5 + (-2)$. Give the sum. Which of these has the same value?

4. Simplify this expression. $4n + 9 - 6 - 3n$

5. Charlotte rode her bike around the town. She rode $\frac{1}{4}$ of a mile to her grandmother's house, $1\frac{3}{4}$ mile to the library, 2 miles to the park, and $\frac{1}{2}$ mile to her home. How far did Charlotte ride?

6. Study the graph. Does it represent a proportional relationship? How do you know?

7. How many tenths of a kilometer are in $\frac{3}{5}$ of a kilometer?

8. If 35% of 300 children had zero cavities, how many children was that?

9. The height of the book shelf is 3 feet more than its length. Write an expression to represent the height of the book shelf.

10. Cal paid $33.00 for 10 bags of cotton candy. What was the unit rate in cost per bag?

11. $3.6 \div 0.09 = ?$

12. Write and solve an inequality that means "4 plus a number (w) is greater than 8."

1.

7.NS.2

2.

6.EE.6

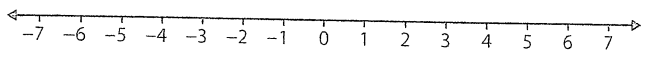
3.

7.NS.1

A) $5 + 2$

B) $5 - 2$

C) $-5 + 2$



4.

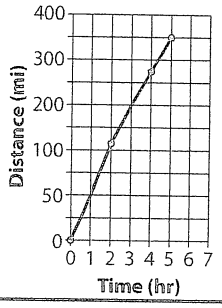
7.EE.4

5.

7.NS.3

6.

7.RP.2



7.

6.RP.1

8.

6.RP.3

9.

6.EE.6

10.

6.EP.2

11.

6.NS.3

12.

6.EE.5

Lesson #28

1. Pam put one gallon of gas in the tank of her lawn mower. She used $\frac{3}{4}$ of a gallon to mow the lawn. Then she added a half gallon of gas to the tank. Which addition expression represents the amount of gas in the tank? Solve the equation.

2. Find the surface area of the prism.

3. Write a realistic problem situation that can be represented with the expression $3x + 5$ where x represents the number of players on a team.

4. At midnight, the temperature was 0°. It fell 2 degrees per hour for 3 consecutive hours. Write and solve a multiplication equation to find the temperature at 3:00 a.m.

5. Use the properties of addition to simplify this expression. $-7 + 13x + 2x + 8$

6. Write an algebraic expression to show the formula for an area of a triangle. What is the area of the triangle when the base is 8 feet and the height is 2 feet?

7. Noah was jump roping in physical education class. He jumped 4 steps forward, 3 steps back, and 8 steps forward before he stopped. How many steps was he from his starting position?

8. What is the median of this set of data?

9. Some students are keeping track of how far they can run. They make a chart of average distance by age. Are the data proportional? Explain.

10. Study the equation $14 - 2z = 0$. Which value for z makes the equation true?

11. Simplify this complex fraction. $\dfrac{\frac{3}{4}}{\frac{15}{4}}$

12. How many points is the test worth if 9 points represent 15% of the total?

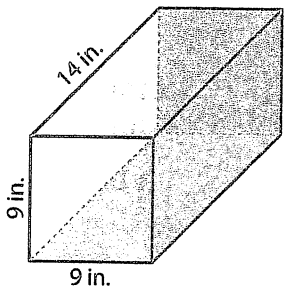
1. 7.NS.1

A) $1 - \frac{3}{4} = x$

B) $1 - \frac{3}{4} + \frac{1}{2} = x$

C) $\frac{3}{4} - \frac{1}{2} = x$

2. 7.G.6



3. 6.EE.6

4. 7.NS.2

5. 7.EE.1

6. 6.EE.2

7. 7.NS.3

8. 6.SP.5

91	185	155	83	125	92	187	143	155	183	191

9. 7.RP.2

Age	Average Distance Run (mi)
11	2.2
13	2.6
15	3.1
18	3.4

10. 6.EE.5

4 5 6 7

11. 7.RP.1

12. 6.RP.3

Lesson #29

1. Kalil pays an interest rate of 28% on his credit card balance. If his balance is \$100, he will pay an additional \$28 in interest. Complete the chart to show what Kalil will pay for each balance.

2. The Super Bowl half time show lasts 30 minutes. If the half time show is $\frac{1}{7}$ of the total game time, how many hours is the Super Bowl from start to finish? Write your answer as a mixed number.

3. Amelia is preparing a $2\frac{1}{4}$ minute performance for the talent show. So far, her song is $\frac{3}{4}$ of a minute long. How much longer does her song need to be?

4. Use the number line to subtract $5 - 8$. Give the difference. To subtract an integer, add its _____.

5. Expand this expression by using the distributive property. $4(-2g + 4 - 3t)$

6. Find the volume of the triangular prism.

7. If a delivery truck drives 150 miles in 6 hours and maintains that rate of speed, what is the unit rate for miles per hour?

8. Study the equation: $-5 \times 6 = -30$. Choose the word that correctly completes the sentence. When a negative integer is multiplied by a positive integer, the product is (negative / positive).

9. Express *six more than a number* using algebraic symbols.

10. Study the graph. Does it represent a proportional relationship? How do you know?

11. Simplify the expression by combining like terms. $6(y + 0.75) + 1.4y$

12. $1.812 \div 0.3 = ?$

1. 6.RP.3

Balance	Interest
$100	$28
$185	
$210	
$385	

2. 7.RP.1

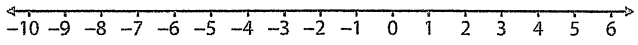
3. 7.NS.3

4. 7.NS.1

A) absolute value

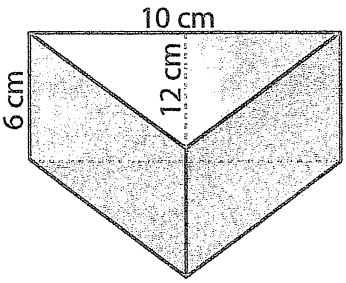
B) coordinate pair

C) additive inverse



5. 7.EE.1

6. 7.G.6

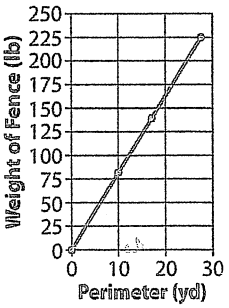


7. 6.RP.2

8. 7.NS.2

9. 6.EE.2

10. 7.RP.2



11. 6.EE.4

12. 6.NS.3