



Algebraically Speaking

If $x - 4$ is two greater than y , then $x + 5$ is how much greater than y ? (5.03)



Mathmania

A goat is tied to a corner of a 60 ft by 75 ft barn in the center of a grassy field. His rope is 50 ft long. Approximately how much area does he have to graze? (1.03)



Investigate Data

A class of eighth grade students counted the change in coins that they had in their pockets, backpacks, or purses. Below are their results.

Make a box plot of these data.

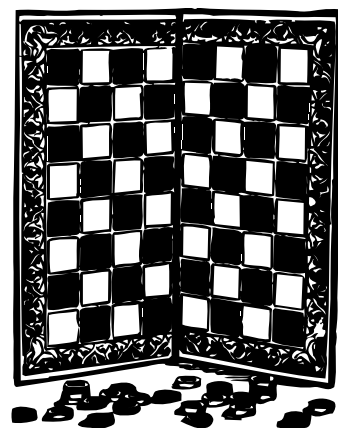
\$1.30 \$2.25 \$0.43 \$1.21 \$0.57
 \$0.65 \$0.10 \$1.12 \$2.01 \$0.45
 \$2.42 \$0.07 \$0.67 \$1.74 \$0.27
 \$3.68 \$1.10 \$2.33 \$2.01 \$1.01
 \$0.25 \$0.71 \$1.07 \$0.32 \$1.23

What does your box plot tell you about the typical amount of change carried by a student in this class. (4.01)

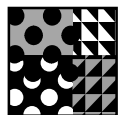


Solve It!

There are 12 members in a checker match. If each member plays one game with each of the other members, how many games will be played?

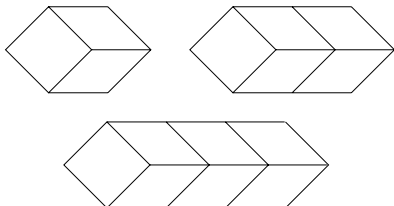


(1.03)



Measurement Rules

Some unit cubes are placed side by side to form rectangular prisms. Find the surface area for the first five sets of cubes



Write an expression for finding the surface area of any such prism from the number of cubes, n . (2.02, 5.01)



Write On!

Explain the difference between the graphs of $y > 2x + 7$ and $y \geq 2x + 7$. (5.03, 5;01)

(5.03, 5;01)



Keeping Skills Sharp

1-5 Order from least to greatest.

- 10.1, 10.01, 11.01, 11.101, 10.101
- 12, -3, 22, -14, 5, 0
- $2\frac{2}{3}$, $2\frac{1}{2}$, $-2\frac{1}{4}$, $-2\frac{7}{12}$, $2\frac{5}{6}$
- 6.2, 6.03, -6.1, -6.01, 6.14
- 53%, $-\frac{1}{2}$, 0.51, 50%, -0.05, -55

Write answers here:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

6-10 Compare. Write <, >, or =.

- 6.1 $6\frac{1}{9}$
- 1.5 -1.8
- 4^2 2^4
- $(\frac{1}{2})^2$ $\frac{1}{6}$
- 66% $\frac{2}{3}$



Mental Math

Directions to Students:

Write your answers as the questions are called out.
Each question will be repeated only once.

- | | |
|----------------|-----------------|
| 1 _____ | 6 _____ |
| 2 _____ | 7 _____ |
| 3 _____ | 8 _____ |
| 4 _____ | 9 _____ |
| 5 _____ | 10 _____ |

Answer Key

Grade \rightarrow

WEEK
3 1

Algebraically Speaking

11

Mathmania

5,890 square feet

Solve It!

Members

2

3

4

Games

1 (1)

3 (2 + 1)

6 (3 + 2 + 1)

From the table you
can see the pattern.

12

$11 + 10 + 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 =$
66 games

Write On!

The graph of the inequality $y > 2x + 7$ does not include the line $y = 2x + 7$ while the graph of $y \geq 2x + 7$ does.

Measurement Rules

Figure

1

2

3

4

5

Surface area

6 square units

10 square units

14 square units

18 square units

22 square units

If n = number of cubes

Surface Area = $4n + 2$

Investigate Data

median = \$1.07

lower quartile = \$0.44

upper quartile = \$1.88

Explanations will vary.

Keeping Skills Sharp

1. 10.01, 10.1, 10.101, 11.01, 11.101

2. -14, -3, 0, 5, 12, 22

3. $-2\frac{7}{12}$, $-2\frac{1}{4}$, $2\frac{1}{2}$, $2\frac{2}{3}$, $2\frac{5}{6}$

4. -6.1, -6.01, 6.03, 6.14, 6.2

5. -55 , $-\frac{1}{2}$, -0.05 , 50% , 0.51 , 53%

6. $<$

7. $>$

8. $=$

9. $>$

10. $<$

Mental Math

This section provides an opportunity for sharpening students' mental computation.

1. $81 + 14 + 29$

2. $0.12 + 0.05 + 3.01$

3. $12\frac{2}{5} - 3\frac{4}{5}$

4. 15 is what percent of 150?

5. Give the prime factorization of 16.

6. Find the GCF of 60 and 144.

7. Find the area of a 14 m by 9 m rectangle.

8. Evaluate: $(86 \times 3) + (4 \times 3)$

9. Nearest tenth to 1.099

10. About how far can you go on 9.6 gallons of gasoline if your car gets 30 miles per gallon.

Mental Math

1. 124

2. 3.18

3. $8\frac{3}{5}$

4. 10%

5. 2^4

6. 12

7. 126 m^2

8. 270

9. 1.1

10. 300 miles



Algebraically Speaking

Write an inequality and find the missing number:

If one is added to three times a number, the sum is less than twice the number.

(5.02)



Mathmania

The areas of the sides of a box are 42 cm^2 , 54 cm^2 , and 63 cm^2 . What is the volume of the box?

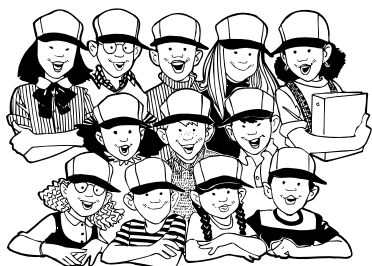


(1.03, 2.02)



Investigate Data

Mr. Brown compared the results of two sets of test scores for a group of 12 students. The mean score on the second test was two points lower than that of the first test. The median grade on both tests was the same. Determine two sets of scores that would produce these results.



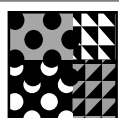
(4.05)



Solve It!

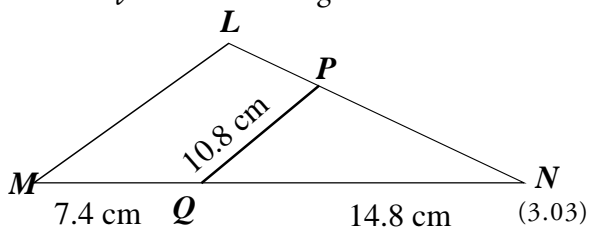
Roger babysits for $4\frac{3}{4}$ hours each Saturday and each Sunday. He plans to babysit for $3\frac{1}{2}$ weekends next month. What is the total number of hours he will babysit next month?

(1.02)



Geometry Rules

Triangle LMN is similar to triangle PQN . Find the length of LM .



Write On!

Explain the difference between a relation and a function.



(5.01)



Keeping Skills Sharp

1. Solve for a : $a - 249 = 56$
2. Solve for b : $8.75 - b = 5.71$
3. Solve for n : $30 = \frac{n}{12}$
4. 20% of 220 is what number?
5. Give the prime factorization of 24.
6. Find the LCM of 25 and 30.
7. A parallelogram has a base of 16 meters and a height of 4 meters. Find the area.
8. Simplify: $(7 + 4 \times 3)^2$
9. Nearest tenth to 3.009
10. 140 inches = ____ feet

Write answers here:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Mental Math

Directions to Students:

Write your answers as the questions are called out. Each question will be repeated only once.

1 _____

6 _____

2 _____

7 _____

3 _____

8 _____

4 _____

9 _____

5 _____

10 _____

Answer Key

Grade \rightarrow

WEEK
32

Algebraically Speaking

$$3n + 1 < 2n; n < -1$$

Solve It!

$$33 \frac{1}{4} \text{ hours}$$

Mathmania

$$378 \text{ cm}^3$$

Geometry Rules

$$m \overline{LM} = 16.2 \text{ cm}$$

Investigate Data

Answers will vary.

Write On!

A relation is any set of ordered pairs. A function is a relation where every ordered pair has a unique second element (ordinate).

Ex. $A = \{(3, 5), (3, 7), (2, 8)\}$ $B = \{(1, 2), (2, 3), (3, 4)\}$ A is a relation but not a function since two ordered pairs have the same abscissa, x , value but different ordinates, y , values. B is a function.

Keeping Skills Sharp

- 305
- 3.04
- 360
- 44
- $2^3 \times 3$
- 150
- 64 m^2
- 361
- 3.0
- $11 \frac{2}{3} \text{ feet}$

Mental Math

This section provides an opportunity for sharpening students' mental computation.

- $\frac{3}{4} \times 1\frac{1}{3}$
- $(-3)^3$
- 75% of ? = 9
- $10(2.5 + 1.5)$
- $48.6 \times 10,000$
- $42 - (-32) + 11$
- 1.6×0.03
- Simplify: $\frac{49}{63}$
- $\frac{1}{2}(9 \times 8 \times 0.5)$
- Estimate: 42×58

Mental Math

- 1
- 27
- 12
- 40
- 486,000
- 85
- 0.048
- $\frac{7}{9}$
- 18
- 2,400



Algebraically Speaking

The numerator of a certain fraction is six less than the denominator. If the numerator is tripled and the denominator is increased by 12, the value of the resulting fraction is three-fourths. Find the original fraction.

(5.02, 5.03, 1.01)



Mathmania

On a recent 25-item exam, Scotty's score was 75. The teacher gave her four points for each correct answer and took off one point for each wrong answer. How many items did Scotty get correct?



(1.03)



Investigate Data

Survey the students in your class to obtain their height in inches. Display these data in a stem-and-leaf plot that separates the data by gender. What is the mean height for males? for females? What is the median height for males? for females?

(4.01, 4.02)

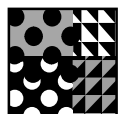


Solve It!

José and Manuel went to a restaurant to celebrate Manuel's birthday. Manuel ordered a \$2.98 cheeseburger, a \$0.99 soda and a \$1.12 order of fries. José ordered the same as Manuel. If the tax is 5% and José is paying for the entire meal, how much will José spend all together?



(1.01)



Geometry Rules

Mrs. Murray's science class is building an uncovered compost box. How many square feet of plywood are needed if the box is 15 feet wide, 10 feet long and 2 feet tall? How many square feet of plastic are needed to cover the box?



(2.02)



Write On!

Write a problem you can solve by making a list. Explain why making a list is a good strategy to use to solve the problem you wrote.

(1.03)



Keeping Skills Sharp

1. Solve for M : $M \times 19 = 66.5$
2. $8.7 \times 4.8 =$
3. $6\frac{2}{7} \div \frac{2}{7} =$
4. 21 is what percent of 60?
5. Give the prime factorization of 84.
6. Find the GCF of 108 and 168.
7. A circle has a diameter of 18 cm. Find the area (to the nearest whole number).
8. Simplify: $16.25 - (2.5 + 3.85) \times 2.01$
9. Nearest hundredth to 3.009 is ?
10. Ryan is on page 32 of a 275 page novel. If he reads 30 pages per day, about how many days will it take him to complete the novel?

Write answers here:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Mental Math

Directions to Students:

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- | | |
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| 5 _____ | 10 _____ |

Answer Key

Grade \rightarrow

WEEK
33

Algebraically Speaking

$$\frac{6}{12}$$

Mathmania

20 items correct

Investigate Data

Answers will vary.

Geometry Rules

250 ft² – plywood

150 ft² – plastic

Solve It!

\$10.69

Write On!

Answers will vary.

Keeping Skills Sharp

- 3.5
- 41.76
- 22
- 35%
- $2^2 \times 3 \times 7$
- 12
- 254 cm²
- 3.4865
- 3.01
- 8 days

Mental Math

This section provides an opportunity for sharpening students' mental computation.

Estimate each sum, difference, product or quotient

- $172.5 + 25.6$
- $12.2 - 4.5$
- $123 + 270 + 698$
- $9\frac{2}{3} \cdot 4\frac{2}{3}$
- $15\frac{1}{5} - 5\frac{4}{7}$
- 72×49
- $11.7 \div 2.8$
- 3.02×15.1
- $170 \div 11$
- $62\frac{1}{2} \div 12\frac{2}{3}$

Mental Math

Answers may vary.

- 200
- 7
- 1,100
- 50
- 9
- 3,500
- 4
- 45
- 17
- 5