



Algebraically Speaking

Determine whether or not $x - 2y = 10$ is a function. Explain.

(5.01)

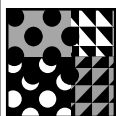


Investigate Data

Use the newspaper to find the prices of six used cars from the same model year. Find the range, median, and mean of the prices.

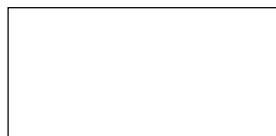


(4.02)



Geometry Rules

These two rectangles are similar.



12cm



4 cm

The larger rectangle has an area of 72 cm^2 . What is the area of the smaller rectangle?

(3.03)



Mathmania

The first five figure skating judges gave Dora scores of 7.2, 7.3, 7.7, 7.8, and 7.5. What score does she need from the sixth judge to score a 7.55 average?



(4.02)



Solve It!

Mr. Money invested \$10,000 in a certificate of deposit (CD) for three years at a rate of 3.75% compounded annually. What will be the value, A , of the CD at the end of the three year period? Use the formula $A = p(1 + r)^t$, where A is the final amount (value), p is the initial amount invested, r is the annual interest rate, and t is the time in years.

(5.04)



Write On!

Can x^2 and $2x$ ever be equivalent? Explain.

(5.03)



Keeping Skills Sharp

Use this set of measurements to answer questions 1-6.
{15 m, 11m, 10m, 16m, 11m, 10m, 13m, 14m}

Write answers here:

1. What is the mean? 1. _____
2. What is the median? 2. _____
3. What is the 1st quartile? 3. _____
4. What is the range? 4. _____
5. If an additional measurement of 13.5 m is added to the set, how would this affect the median? 5. _____
6. How would this additional measurement affect the mean? 6. _____
7. Give the prime factorization of 66. 7. _____
8. Find the LCM of 10 and 18. 8. _____
9. Simplify: $(3.8)^2 - (3.2 + 0.8) \div 0.4$ 9. _____
10. 250% of 650 = 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
34

Algebraically Speaking

It is a function.

Investigate Data

Answers will vary.

Mathmania

7.8

Geometry Rules

8 cm²

Solve It!

\$11,167.71

Write On!

Explanations will vary.

Keeping Skills Sharp

1. 12.5 m
2. 12 m
3. 10.5 m
4. 6 m
5. the median changes to 13 m
6. the mean changes to 12.6 m
7. $2 \times 3 \times 11$
8. 90
9. 4.44
10. 1,625

Mental Math

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

1. $4^2 + 5^3$
2. $27 \div (-3) \times 4 + 8.5$
3. $\frac{5}{6} + \frac{7}{12}$
4. 300% of 18
5. A triangle has a base of 14 meters and a height of 10 meters. Find the area.
6. The nearest hundred to 11,998 is ?
7. $8 \times 5\frac{1}{4}$
8. What is 75% of 800?
9. What is the perimeter of a parallelogram with sides of 25 feet and 30 feet?
10. -1.5^2

Mental Math

1. 141
2. -27.5
3. $1\frac{5}{12}$
4. 54
5. 70 m²
6. 12,000
7. 42
8. 600
9. 110 feet
10. -2.25



Algebraically Speaking

Write an equation to represent the problem and solve:

Alice is 22 years old. She is eight years older than Jim who is twice Sam's age. How old is Sam?

(5.03)



Mathmania

Julie purchased her stereo for \$620.10, including 6% sales tax. If she had bought the stereo while visiting her grandmother in a neighboring state where the sales tax is only 4%, how much money could she have saved?

(1.01)



Investigate Data

Tom's phone bill was too high! The monthly bills for June, July, and August were all equal. After Tom made a plan for cutting back his bill, September was \$38.62 and October was \$36.43. If



the average cost for all five months was \$54.16, how much was his bill in August?

(4.02)

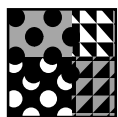


Solve It!

The price of a radio was originally \$48. The price was reduced by 25% and then a clearance sale gave an additional 10% off the sale price. If a buyer must pay 6% tax on the price he pays for the radio, what will his total cost be?



(1.01)



Measurement Rules

If a pool filter cartridge will clean about 30,000 ft³ of water, how many cartridges will be needed for a pool 120 feet long, 150 feet wide, and 10 feet deep?

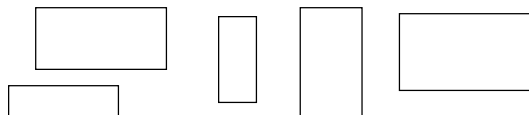
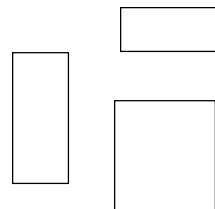


(2.02)



Write On!

Are all rectangles similar?
Explain why or why not?



(3.02)



Keeping Skills Sharp

Compare. Write $<$, $>$, or $=$.

1. $47\frac{2}{3}$ 47.75

2. -72.01 $-72\frac{1}{25}$

3. $5\frac{1}{3}$ 5.27

4. -0.76 -0.67

5. -2^3 -4

Order from least to greatest.

6. $-10, 8, 9, 0, -5, -3$

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

8. $4.6, 4\frac{2}{3}, -4.4, -4\frac{1}{2}, 0$

9. $8.3, 8, 0.8, 8.2\%, 8\%$

10. $14\%, -0.125, 0, 0.15, -1, .5$

Write answers here:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Mental Math

Directions to Students:

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1 _____

6 _____

2 _____

7 _____

3 _____

8 _____

4 _____

9 _____

5 _____

10 _____

Answer Key

Grade \rightarrow

WEEK
35

Algebraically Speaking

s = Sam's age

$$22 = 2s + 8$$

$$14 = 2s$$

$$7 = s$$

Measurement Rules

six cartridges

Solve It!

\$34.34

Write On!

No; explanations will vary.

Mathmania

\$11.70

Investigate Data

\$65.25

Keeping Skills Sharp

- <
- >
- >
- <
- <
- 10, -5, -3, 0, 8, 9
- $\frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \frac{5}{6}$
- $-4\frac{1}{2}, -4.4, 0, 4.6, 4\frac{2}{3}$
- 8%, 8.2%, 0.8, 8, 8.3
- 1, -0.125, 0, 14%, 0.15, 0.5

Mental Math

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

- $214 + 12 + (-28)$
- $0.81 + 16.99$
- $3\frac{1}{2} \div \frac{1}{4}$
- 5% of what number is 20?
- What is the prime factorization of 18?
- Find the GCF of 16 and 56.
- Find the area of a square with sides of 1.2 meters.
- Simplify: $6^2 \times (-2) + 14$
- The nearest hundred to 4,132 is ?
- Mark owes Julie \$13.75. How much change should he receive from a \$20 bill?

Mental Math

- 198
- 17.8
- 14
- 400
- 2×3^2
- 8
- 1.44 m^2
- 58
- 4,100
- \$6.25



Algebraically Speaking

Determine whether or not this relation is a function.

$$\{(4, 2), (-3, 2), (-1, 4), (1, -3), (-1, -4)\}$$

(5.01)



Mathmania

For this pattern, write a relationship between n , the number of squares in the figure and P , the perimeter of the shape.



(5.01)



Investigate Data

Jake has five major test grades for the current marking period. The mean of these grades is three points higher than the median grade. Determine two different sets of test grades that meet these conditions.

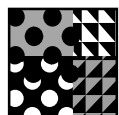
(4.02)



Solve It!

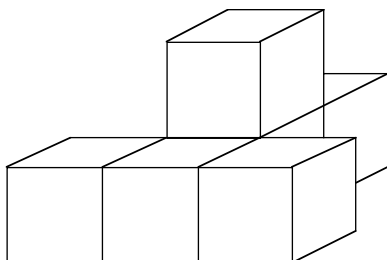
There are 30 pennies in a row. A nickel replaces the second penny and every second penny after it. Then a dime replaces the third coin and every third coin after it. Next, a quarter replaces the fourth coin and every fourth coin after it. Finally, a fifty-cent piece replaces the fifth coin and every fifth coin after it. What is the value of the thirty coins in a row?

(1.03)



Measurement Rules

Find the surface area of this figure if each cube has an edge measure of 3.6 cm.



(2.02)



Write On!

Marty used the equation below to find the solution to a problem. Identify a problem that could be solved with this equation.

$$x + (x + 1) + 2(x + 1) = 27$$

(5.02)



Keeping Skills Sharp

Write answers here:

- Solve for g : $3,840 - g = 3,771$
 - Solve for D : $D - 33.06 = 23.18$
 - Solve for n : $\frac{26}{50} = \frac{n}{100}$
 - 93 is 75% of what number?
 - Give the prime factorization of 51.
 - Find the LCM of 12 and 108.
 - Find the area of a circle with a radius of 3.5 feet.
 - Simplify: $63 \div 7 + 3 \times 5$
 - Nearest ten to 905
 - $-32.7 \times (-2.8) + (-27.63) \div 0.9 =$
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Mental Math

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- | | |
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Answer Key

Grade \rightarrow

WEEK
36

Algebraically Speaking

No

Measurement Rules

336.96 cm²

Investigate Data

Answers will vary.

Mathmania

$2n + 2 = P$

Write On!

Answers will vary.

Solve It!

5 10 25 50 10
 1

25 10 50 25
 1 1

5 50 25 10
 1 1

50 10 5 25
 1 1

50 5 10 25 50
 1 1

50¢ \$3.00

25¢ 1.50

10¢ .60

5¢ .20

1¢ .08

\$5.38

Keeping Skills Sharp

- 69
- 56.24
- 52
- 124
- 3×17
- 108
- approximately 38.5 ft²
- 24
- 910
- 60.86

Mental Math

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

- Estimate: $18.32 - 4.689$
- $66\frac{2}{3}\%$ of \$33.00
- $10 \div \frac{5}{6}$
- $(2.97)^0$
- $2^2 + 3^1 + 5^2$
- $8.1 \div 0.09$
- $0.625 = ?\%$
- $3 : 24 = \underline{\quad} : 40$
- 25% of \$80
- $1\frac{3}{8} = \frac{\quad}{8}$

Mental Math

- 13 to 14
- \$22.00
- 12
- 1
- 32
- 90
- 62.5
- 5
- \$20
- 11