Fraction Action

Sam spent half of his money on a shirt.

At another store he spent half of the money he had left.

Later, he bought a CD for $6.75. He had $2.50 left at the end. How much money did Sam have in the beginning?

(1.04, 1.07)

Probability Pizzazz

Jane has five pieces of candy and will eat one piece each of the next five days. Three pieces are wrapped in blue foil and two pieces are wrapped in yellow foil. What is the probability that she will eat a piece of candy wrapped in yellow foil on the fifth day?

(4.02)

Geometry Gems

Triangle LMN: $L(2, 8)$, $M(4, 5)$, $N(7, 6)$ is transformed according to the rule

$$(x', y') = (x + 3, y - 4).$$

Give the coordinates of triangle $L'M'N'$.

(3.03)

Solve This!

Sally put red, white and blue handkerchiefs in a drawer. One-third of the handkerchiefs were red, one-fourth of the handkerchiefs were white and ten were blue. How many handkerchiefs were in the drawer and how many of each color were there?

(1.07)

Mathematically Speaking

What are the maximum number of points of intersection for a circle and a pentagon in the same plane?

(3.01)

Keeping Skills Sharp

1. Write one and five thousandths in standard form.
2. Evaluate if $x = 2.5$: $15(x + 7.5) - 2.38$.
3. Complete the equation with <, >, or = : $\frac{3}{4}$ ___ $\frac{4}{5}$
4. Solve for R: $3.5R = 53.9$.
5. What is the value of 9 in 1.0309?
6. Give the greatest common factor of 12, 27, and 36.
7. List the factors of 10.
8. Make a factor tree for 36.
9. $37.4 \div 5.5 = ?$
10. 7.3825 to the nearest tenth is ?

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 6

WEEK 28

Solve This!

There were a total of 24 handkerchiefs — 10 blue, 8 red, and 6 white.

Fraction Action

$37.00

Geometry Gems

$L'(5, 4)$; $M'(7, 1)$; $N'(10, 2)$

Probability Pizzazz

P(yellow on day 5) = $\frac{4}{10}$ or $\frac{2}{5}$

Mathematically Speaking

10 points of intersection

Keeping Skills Sharp

1. 1.005
2. 147.62
3. <
4. $R = 15.4$
5. nine ten-thousandths
6. 3
7. 1, 2, 5, 10
8. answers will vary
9. 6.8
10. 7.4

Mental Math

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

1. What is 5% of 60?
2. 600 x 30
3. 640 ÷ 40
4. List the prime factors of 35.
5. $8\frac{1}{2} - 5\frac{3}{4}$
6. $3 \times 2\frac{1}{2}$
7. $7 \cdot 3 \cdot \frac{1}{7} \cdot 1$
8. Estimate: $\frac{7}{8} + \frac{9}{10}$
9. Write $9 \times 9 \times 9$ in exponential notation.
10. Write $\frac{2}{5}$ as a decimal.

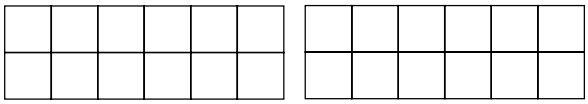
Mental Math

1. 3
2. 18,000
3. 16
4. 5, 7
5. $2\frac{3}{4}$
6. $7\frac{1}{2}$
7. 3
8. about 2
9. 9^3
10. 0.4

Fraction Action

Shade in the diagram below to show $1\frac{5}{12}$. Shade using hash marks ▨ .

Now shade the model to show subtracting $\frac{5}{4}$.



What is $1\frac{5}{12} - \frac{5}{4}$?

(1.04, 1.07)

Probability Pizzazz

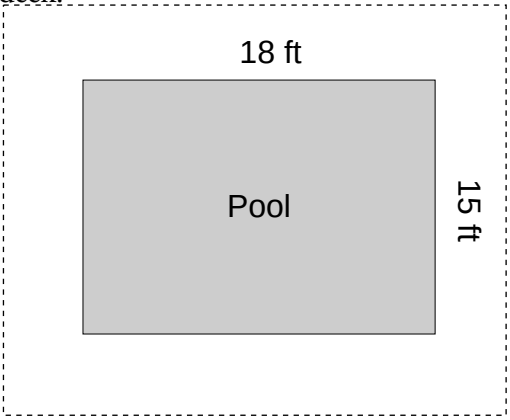
Draw a spinner, using numbers less than 20, that satisfies the following conditions:

- the probability of spinning a prime number is 25%
- the probability of spinning an even number is 50%
- the probability of spinning an odd number is 50%

(4.04)

Solve This!

A deck 3 feet wide is to be built on each side of the pool as shown below. What is the area of the deck?



(2.02)

Measurement Gems

A sailboat has a mast that holds a triangular sail. The sail has a base of twelve meters and a height of nine meters. The cost of the sail is $15 per square meter. What will it cost to make the sail?

(2.02)

Mathematically Speaking

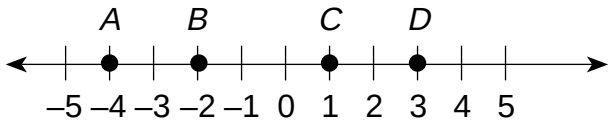
Find the population of five different countries. Write these data in both standard form and scientific notation.

(1.06)

Keeping Skills Sharp

1. What is the ratio of circles to triangles?

2. Write 236 in expanded form using exponents.
3. 572.3907 to the nearest tenth is ?
4. What is the value of the 3 in 2.03467?
5. What is the opposite of the number at point *D*?



6. Name the first five positive multiples of 8.
7. What is the prime factorization of 36?
8. Find the product: 15.8×2.7
9. 1,756 to the nearest hundred is ?
10. How many diagonals are in a regular hexagon?

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 6

WEEK 29

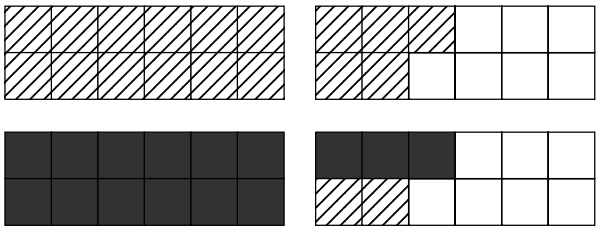
Measurement Gems

The area of the sail is 54 square meters. Cost would be $54 \times 15 = \$810$.

Solve This!

234 square feet

Fraction Action



$\frac{2}{12}$ or $\frac{1}{6}$

Mathematically Speaking

Answers will vary.

Probability Pizzazz

Answers will vary.

Keeping Skills Sharp

1. 3:4; 3 to 4; or $\frac{3}{4}$
2. $(2 \times 10^2) + (3 \times 10^1) + (6 \times 10^0)$
3. 572.4
4. three hundredths
5. –3
6. 8, 16, 24, 32, 40
7. $2^2 \times 3^2$
8. 42.66
9. 1,800
10. 9

Mental Math

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

1. What is 30% of 60?
2. What number is halfway between 50 and 100?
3. Write in standard form: 7.2×10^3
4. What is $\frac{2}{3}$ of 18?
5. 4.5 – 1.21
6. How much time is there from 9:00 a.m. until 3:30 p.m.?
7. 259 + 99
8. If you go 540 miles in 27 hours, how many miles per hour are you travelling?
9. Write 0.86 as a percent.
10. Write in standard form 2×10^4.

Mental Math

1. 18
2. 75
3. 7,200
4. 12
5. 3.29
6. 6 hours, 30 minutes
7. 358
8. 20 miles per hour
9. 86%
10. 20,000

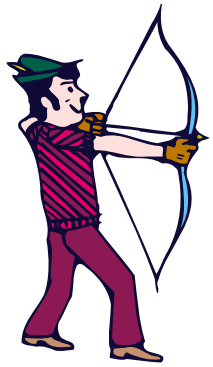
Fraction Action

Marie is making picture frames that are $5\frac{1}{2}$ inches wide and $6\frac{3}{4}$ inches long. She puts silver ribbon around the edge of each one. If she makes 12 of them, how many feet of ribbon will she need?

(1.04)

Probability Pizzazz

Hank is shooting arrows at a circular target with a diameter of 3 feet. In the center of the target is a red, circular region with a radius of 6 inches. What is the probability that an arrow will land on the target in the red region? What is the probability that an arrow will land on the target but miss the red region?



(4.02)

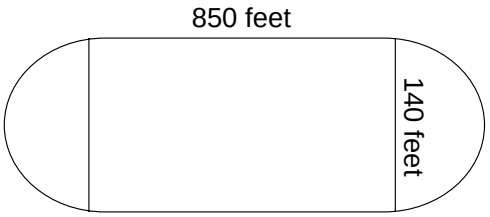
Solve This!

Carl wants to plant flowers around a rectangular garden. The plants should be 6 inches apart to allow for adequate growth. The perimeter of the garden is 30 feet. The first plant is placed at a corner of the rectangle. How many plants are needed?

(1.07, 2.02)

Measurement Gems

The race track below has ends which are semi-circles. What is the distance around the track?



(2.02)

Mathematically Speaking

Evaluate the expression below for $s = 4$, $t = 3$, and $v = 7$.

$$(s^3t^2 - v)^2$$

(1.06, 5.02)

Keeping Skills Sharp

Write answers here:

1. Solve for p: $3p + 2.9 = 38.6$ — 1. _____
2. $\frac{3}{5} - \frac{1}{3} =$ — 2. _____
3. $394.063 - 36.49 =$ — 3. _____
4. Give the factors of 10,005 between 1 and 10. — 4. _____
5. Which is smaller, 1 quart or 3 pints? — 5. _____
6. A rectangle has a perimeter of 48 inches. Give three possibilities for length and width and the area for each case. — 6. _____
7. Three people in a club are 15 years old and two members are 12 years old. What is the probability that a member selected at random is 12 years old? — 7. _____
8. $15 - 2 \times (5 + 3) \div 4 =$ — 8. _____
9. A class has 16 boys and 8 girls. If a name is drawn at random, what is the probability that a girl's name is drawn? — 9. _____
10. What is the range of the following set of measurements:

    82 cm, 1.2 m, 140 cm, 95 cm, 2.3 m, 1.8 m, 163 cm, 2 m,

    35 cm, 0.8 m — 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 6

WEEK 30

Fraction Action

$2 \times (5.5 + 6.75) \times 12 = 294$ inches = 24.5 feet

Solve This!

60 plants

Measurement Gems

The straight sides of the track are each 850 feet. The ends are two semicircles with diameter of 140 feet. The round part would have length of $140 \times \pi$ feet. The total length is approximately 2139.8 feet.

Probability Pizzazz

P(arrow lands in red region) = $\frac{1}{9}$

P(arrow misses the red region) = $1 - \frac{1}{9} = \frac{8}{9}$

Mathematically Speaking

5,085,025

Keeping Skills Sharp

1. $p = 11.9$
2. $\frac{4}{15}$
3. 357.573
4. 3 and 5
5. One quart is smaller.
6. Answers will vary.
7. $\frac{2}{5}$
8. 11
9. $\frac{8}{24}$
10. Range is 1.95 m or 195 cm

Mental Math

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

1. Estimate: $21.13 - 8.7$
2. Estimate: $21.923 + 0.823$
3. Estimate: 5.8×4.1
4. Write $2\frac{1}{4}$ as a percent.
5. $71 - 2.8$
6. $2\frac{1}{3} \times \frac{1}{2}$
7. What is the largest prime factor of 100?
8. Find $\frac{3}{4}$ of 160.
9. Find 20% of 1000.
10. Which is the largest: $\frac{1}{3}, \frac{1}{2}, \frac{4}{9}, \frac{6}{13}$?

Mental Math

1. 12
2. 23
3. 24
4. 225%
5. 68.2
6. $\frac{7}{6}$ or $1\frac{1}{6}$
7. 5
8. 120
9. 200
10. $\frac{1}{2}$