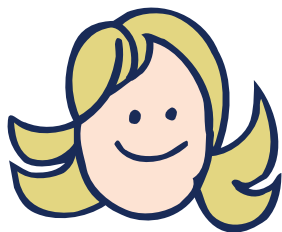## Fraction Action

After Marie's birthday party, there were $2\frac{2}{3}$ pizzas left. Marie gave half of the leftover pizza to her friend to take home. Marie ate $\frac{1}{4}$ of what was left. How much pizza did she eat?

(1.04)

Probability Pizzazz

John has a bag of number tiles labeled 0 - 9. Without looking, he will select a tile, record the number, return the tile to the bag, select a second tile and record that number.

What is the probability that neither of the tiles selected will be a prime number? that both tiles selected will be a prime number? that exactly one tile selected will be a prime number?

(4.05)

Solve This!

In a line of 26 people waiting to buy tickets to a concert, 12 have umbrellas, 10 have raincoats and 7 have both umbrellas and raincoats. The rest have neither.

A.   How many have umbrellas only?

B.   How many have neither?

(1.07)

Geometry Gems

Points A(3, 6) and B(11, 6) are the endpoints of the diameter of a circle graphed in the coordinate plane. What is the circumference of the circle? Express your answer as a multiple of π.
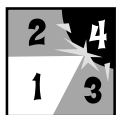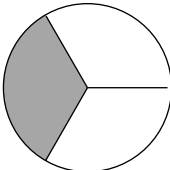
(2.02, 3.04)

Mathematically Speaking

When conducting a survey, it is necessary to select a representative sample. Give an example of a survey topic and an appropriate sample population for the survey.

(4.06)

Keeping Skills Sharp

1. How many days of the year have gone by prior to July 4th?

   prior to your birthday?

2. Will the sum be greater than one or less than one?

   $$\frac{21}{40} + \frac{3}{4}$$

3. Solve for m: $2.6m + 8.2 = 17.3$

4. Four children want to share three bags of M&M's™. There are 52 candies in each bag. How many M&M's™ does each child get?

   Write an algebraic expression to represent this situation.

5. 5 feet + 20 inches =

6. What is the perimeter of a $2\frac{3}{8}$ inch by $2\frac{3}{8}$ inch square?

7. What percent of the circle is shaded?

8. Evaluate: $9y^3$, if $y = \frac{2}{3}$

9. $4 - 2 \times 2 + 8 \times 6 \div 2 =$

10. What part of a gallon is six cups?

Write answers here:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Mental Math

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

Answer Key

Fraction Action

Marie ate one-third of a pizza.

Solve This!

A. 5 B. 11

Geometry Gems

8π units

Mathematically Speaking

Answers will vary.

Probability Pizzazz

P(neither tile selected is prime) = $\frac{36}{100}$ or $\frac{9}{25}$

P(both tiles selected are prime) = $\frac{16}{100}$ or $\frac{4}{25}$

P(exactly one tile selected is prime) = $\frac{48}{100}$ or $\frac{12}{25}$

Keeping Skills Sharp

1. 184 days (185 days in a leap year); answers will vary depending on birthdays

2. greater than one

3. $m = 3.5$

4. $4x = 3(52)$

5. 6 feet 8 inches or $6\frac{2}{3}$ feet

6. $9\frac{1}{2}$ inches

7. $33\frac{1}{3}$ %

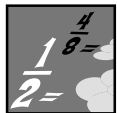8. $2\frac{2}{3}$ 9. 24   10. $\frac{3}{8}$

Mental Math

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

1. What is 40% of 80?

2. Find the least common multiple of 5 and 3.

3. Write the first five positive multiples of 9.

4. Write the prime factorization for 12.

5. Find the greatest common factor of 24 and 32.

6. Solve for x: $2x = 12.18$

7. $148 \div 4$

8. 2.5 x 42

9. Write the next 3 multiples of 12: 12, 24, 36, ___, ___, ___

10. 0.009×0.2

Mental Math

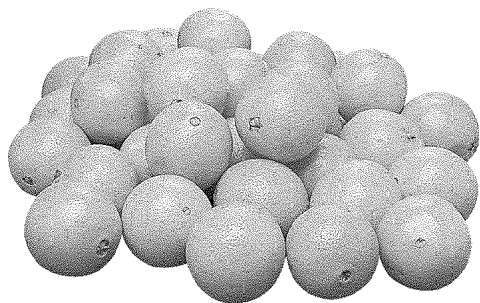1. 32

2. 15

3. 9, 18, 27, 36, 45

4. $2 \cdot 2 \cdot 3$ or $2^2 \cdot 3$

5. 8

6. 6.09

7. 37

8. 105

9. 48, 60, 72

10. 0.0018

Fraction Action

The regular price for oranges is 6 for $2.52.

If they are on sale for $\frac{1}{4}$ off, how much would six oranges cost?

(1.04)

Probability Pizzazz

A baseball coach has five players each of which could play the following positions: left field, center field, right field. How many different ways can she fill these three positions?

(4.01)

Geometry Gems

Triangle *RST* is located in the coordinate plane with the following vertices: *R*(2, 5), *S*(2, -2), and *T*(6, 1). Find the area of triangle *RST* and give the coordinates of another triangle that has an area half that of triangle *RST*.
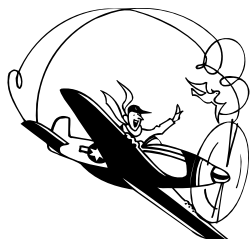
(3.04)

Solve This!

An airplane took four hours to fly 1,500 miles. How many hours will it take the airplane to fly 2,100 miles if it flies at the same speed? Explain.
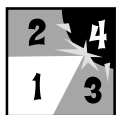
(5.04)

Mathematically Speaking

What value for *y* is a solution of $2y + 3 \geq 15$ but <u>not</u> a solution of $2y + 3 > 15$? Explain.

(5.03)

Keeping Skills Sharp

1. What is the sum of the first eight prime numbers.

2. Compute: $\frac{1}{4} + \frac{2}{5}$ and $\frac{3}{4} - \frac{2}{3}$

3. Order the following from smallest to largest:

   $\frac{5}{9}, \ \frac{4}{8}, \ \frac{11}{15}, \ \frac{3}{7}$

4. Find the product of the first 5 prime numbers.

5. You leave your house at 6:30 a.m. and get home from school at 3:45 p.m. How many minutes were you gone?

6. The sides of a square are 4 meters. If you double the length of the sides, how does this affect the area?

7. $12\frac{2}{3} \div 1\frac{1}{3}$

8. Solve: $1 \times 2 + 3 \times 4 - 5 + 6 \times 7 - 8 + 9$

9. There is an 80% chance of rain today. Write this number as a fraction.

10. Simplify: $4(3x + 7) - 6x + 5$

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 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

Fraction Action

$1.89

Solve This!

If the plane flew 1,500 miles in four hours, the average speed is 375 mph.
2,100 miles ÷ 375 miles/hour = 5.6 hours or 5 hours and 36 minutes

Geometry Gems

The area of triangle *RST* is 14 square units. Answers will vary for the coordinates of the new triangle.

Probability Pizzazz

60 different ways (permutations)

Mathematically Speaking

Explanations will vary.
$y = 6$

Keeping Skills Sharp

1. 77

2. $\frac{13}{20}$, $\frac{1}{12}$

3. $\frac{3}{7}$, $\frac{4}{8}$, $\frac{5}{9}$, $\frac{11}{15}$

4. 2,310

5. 555 minutes

6. The area is four times larger than the original area.

7. $9\frac{1}{2}$

8. 52

9. $\frac{80}{100}$ or $\frac{4}{5}$ 10. $6x + 33$

Mental Math

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

1. What is 70% of 80?

2. What number is halfway between 1,500 and 3,500?

3. $3,900 \div 30$

4. $4 \times 6 \times 5 \times 10$

5. $5\frac{1}{4}$ ft = ___ feet ___ inches

6. Compare: $-3 \bigcirc -2$

7. Compare: $3 \bigcirc \frac{12}{4}$

8. Estimate: $37.93 + 11.77$

9. What is the greatest common factor of 35 and 21?

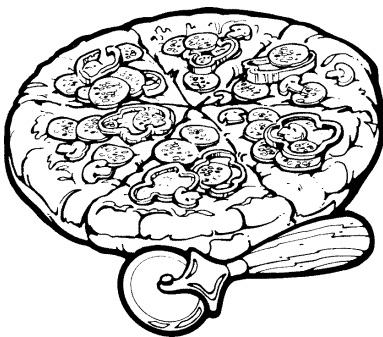10. Write with exponents: $5 \times 5 \times 5 \times 5 \times 5 \times 5$

Mental Math

1. 56

2. 2,500

3. 130

4. 1,200

5. 5 feet 3 inches

6. <

7. =

8. 50

9. 7

10. 5^6

Fraction Action

If $\frac{2}{3}$ of a mini pizza cost $2.40, what

would $\frac{1}{2}$ of a mini pizza cost?

(1.07)

Probability Pizzazz

Design and conduct a survey. Explain the purpose of the survey, question(s) used, and procedure you followed.

Display the data collected in an appropriate format and analyze the results.

(4.06)

Solve This!

Mike is making a round tablecloth with a diameter of 8 feet. He wants to sew red trim around the outside edge and 6 inches from that he will sew yellow trim. If the fabric store sells trim in one-fourth of a yard increments, what is the minimum amount of trim he will need to buy?
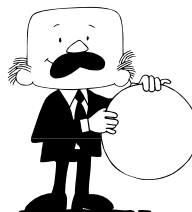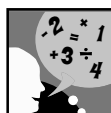
(2.02)

Geometry Gems

A circle with center located at (5, 0) passes through the origin.   What is the circumference of the circle?
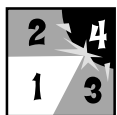
(2.02, 3.04)

Mathematically Speaking

List all the numbers less than 75 with exactly three factors. Find the next two numbers, each greater than 75, that have exactly three factors.

(1.05)

Keeping Skills Sharp

1. Which is the best estimate for $197 + 52$: 250, 300, 255?

2. Find the sum. Simplify your answer.

   $$\frac{3}{15} + \frac{2}{15}$$

3. Find the difference: $13\frac{1}{4} - 2\frac{2}{3}$

4. Simplify: $6(3y + 4) + 2(y - 5)$

5. Which is larger: 2 quarts or 12 cups?

6. Find the circumference of a circular clock face whose diameter is 15 cm.

7. Evaluate: $2x^2 + 3x - 5$, if $x = 4.2$

8. Solve for m: $3m + 5 = 22$

9. If you roll two fair six-sided number cubes that are numbered 1 – 6, what is the probability of rolling two numbers that are the same?

10. Give the prime factorization of 144.

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 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

Fraction Action

Whole pizza = $3.60
Half of pizza = $1.80

Solve This!

Red trim: 8.5 yards
Yellow trim: 7.5 yards

Geometry Gems

10π units

Mathematically Speaking

4 = 1, 2, 4	121 = 1, 11, 121
9 = 1, 3, 9	169 = 1, 13, 169
25 = 1, 5, 25	
49 = 1, 7, 49	

Probability Pizzazz

Answers will vary.

Keeping Skills Sharp

1. 250

2. $\dfrac{1}{3}$

3. $10\dfrac{7}{12}$

4. $20y + 14$

5. 12 cups

6. about 47 centimeters

7. 42.88

8. $m = 5\dfrac{2}{3}$

9. $\dfrac{6}{36}$ or $\dfrac{1}{6}$

10. $2^4 \times 3^2$

Mental Math

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

Find the following:

1. $\dfrac{3}{2}$ of 20

2. $2\dfrac{1}{4} \times 200$

3. $\dfrac{3}{4}$ of 800

4. Write $\dfrac{7}{20}$ as a percent.

5. Write $66\dfrac{2}{3}$ % as a decimal.

Estimate the following:

6. 13×33

7. $172 \div 17$

8. $88 - 22$

9. $72 + 27$

10. 52×37

Mental Math

1. 30

2. 450

3. $600

4. 35%

5. $0.66\overline{6}$

6. 300

7. 10

8. 70

9. 100

10. 2,000