

## Probability Pizzazz

A fair number cube (numbered $1-6$ ) is rolled twice. What is the probability that the first roll is a prime number, and the second roll is a composite number?
(1) If the picnic started at 11:00 a.m., when did it end?
(2) How much more time was spent playing than eating?
(1.04, 1.07)

## 

Seven sisters wanted to plant gardens of equal areas. Each garden had an area of $48 \mathrm{yd}^{2}$. If their gardens are arranged as seen below, what is the perimeter of the entire garden?


## 

Write answers here:

1. $9 \times 4+14 \div 7=$
2. Solve for $c: c+(6-2) \times 3=20$
3. $\qquad$
4. $5+1.25=$
5. $\qquad$
6. Solve for $n: 16 \times n=256$
7. $14 \mathrm{ft}=$ $\qquad$ yd $\qquad$ ft
8. Find the area of a rectangular garden whose length is 8 feet and whose width is 72 inches.
9. $\qquad$
10. $\qquad$
11. Add one number to the following set of data (ages of children in years) so that the mode does not change.
$1,1,2,2,3,3,3$, $\qquad$
12. $\qquad$
13. $6 \times 3+5 \times 4=$
14. $\qquad$
15. If the first letters of the months are written on cards (1 letter per card) and the cards are placed in a bag, what is the probability
16. $\qquad$ of picking a "J"?
17. Complete the pattern: A, C, E, G, I, $\qquad$ , $\qquad$ __
18. $\qquad$
19. $\qquad$

1
2
3
4
5 $\qquad$ 10

## Answer <br> grade 6 <br> Keeping Skills Sharp

## Solve This!

$x=8$ and $y=6$. The perimeter would be 76 units.

## Fraction Action

(1) The picnic ended at $3: 10$ p.m.
(2) They spent 2 hours 43 minutes more playing than eating.

## Geometry Gems

The circle with radius 80 inches has the larger area. The other circle has a radius of only about 77 inches.

## Probability Pizzazz

6
36

## M athematically Speaking

$9 a+12 b$

1. 38
2. 8
3. 6.25
4. 16
5. 4 yd 2 ft
6. $48 \mathrm{ft}^{2}$
7. Anything except 1 or 2.
8. 38
9. $25 \%$ or $\frac{1}{4}$
10. K, M, O

## Mental Math

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

1. Write in exponential notation
sixteen to the seventh power.
2. Write $\frac{1}{5}$ as a decimal.
3. $\frac{5}{12}$ of 24
4. How many ounces are in 5 pounds?
5. Estimate $1 \frac{18}{19}+2 \frac{1}{12}$
6. $\quad 5^{2} \times 3^{2}$ is the prime factorization for what number?
7. $0.3 \times 0.5$
8. $600-51$
9. Write the ratio of 6 blackbirds to 8 bluebirds.

## Mental Math

1. $16^{7}$
2. 0.2
3. 10
4. 80 oz .
5. 0.15
6. 549
7. 6 to 8 or $3: 4$
8. approximately 4
9. 225
10. $6 \frac{1}{4}$


## Fraction Action

Lori and Randy had a new room to paint. Lori spent about $2 \frac{9}{20}$ hours painting and Randy spent about $3 \frac{1}{2}$ hours. About how much time did they spend altogether on painting the room?



## SolveThis!

A candle was 45 centimeters long. It was lit and $20 \%$ burned off. Then the candle went out. The next day the candle was lit and $25 \%$ burned off. Then it went out. On the third
 day the candle was lit, $\frac{1}{3}$ burned off. Then it went out. How long was the candle after the third day?
(1.02, 1.07)


## Probability Pizzazz

How many three-digit area codes (with no repeating digits) can be made using $2,5,7$, and 9 ?

What is the probability that one of these area codes is divisible by 9 ? . . . not divisible by 2 ?


## Geometry Gems

Find the area and the perimeter of the figure shown. The figure is measured in centimeters.



Tisha is five years older than John. Alex is three more than twice John's age. Sara is twice as old as Tisha. If John's age is represented by A , what is the algebraic representation for the other ages?

## 

1. $672+28=$
2. $7 \times 4-2 \div 1 \times 6=$
3. Solve for $J: 6.72-J=3.92$
4. $300 \div 25=$
5. Use <, >, or =.

72 inches $\bigcirc 2$ yards
6. Find the areas:
10. Complete:
$1,2,2,4,8,32,256$, $\qquad$ 1. $\qquad$
2. $\qquad$
3. $\qquad$
4. $\qquad$
5. $\qquad$
6. $\qquad$
7. $\qquad$
8. $\qquad$
9. $\qquad$
10. $\qquad$

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


2
3
4 $\qquad$
5

## Mental Math

$\qquad$
$\qquad$
$\qquad$
9
10

## Geometry Gems

228 square centimeters is the area.
The perimeter is 80 centimeters.

## Solve This!

18 cm

## Fraction Action

About 6 hours

## M athematically Speaking

Tisha: $A+5$; Sara: $2(A+5)$; Alex: $2 A+3$

## Probability Pizzazz

There are 24 possible area codes,
$P($ divisible by 9$)=\frac{6}{24}$ or $\frac{1}{4}$
$P($ not divisible by 2$)=\frac{18}{24}$ or $\frac{3}{4}$

## Mental Math

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

1. Write 3 to the 5 th power in standard form.
2. One angle of a pair of supplementary angles has a measure of $42^{\circ}$. What is the measure of the second angle?
3. Write 0.75 in fraction form.
4. How many pounds are in 3 tons?
5. How many minutes are in 12 hours?
6. $1 \frac{1}{2}-\frac{3}{4}$
7. What is the probability of rolling a 6 on a fair die?
8. $\frac{3}{4}+\frac{1}{2}$
9. $\frac{1}{2} \div \frac{1}{2}$
10. $3.2-1.4$

## Mental Math

1. $3^{5}=243$
2. $138^{\circ}$
3. $\frac{3}{4}$
4. 6,000 pounds
5. 720 minutes
6. $\frac{3}{4}$
7. $\frac{1}{6}$
8. $1 \frac{1}{4}$
9. 1
10. 1.8


## Fraction Action

Shade the rectangle to show $\frac{1}{3}$ of $\frac{1}{4}$.
What fractional part of the polygon is

$$
\frac{1}{3} \text { of } \frac{1}{4} ?
$$




## Solve This!

Misty spent half of her allowance buying four books. She spent one-fourth of her allowance buying seven pens that cost 50 cents each. How much did each book cost?



Probability Pizzazz
Pete had a pizza party. Participating at the party were Pierre, Patrick, Paul, Pele, and Fred. After Pete had seated himself at the table, how many different seating arrangements were possible?



## Geometry Gems

Select three rectangular objects from home or school. Determine the length, width, perimeter and area of each.

(2.01)


## Mathematically Speaking

Simplify: $\frac{2}{3}(6 R+S)+\frac{1}{4}(8 R+15 S)$

## 

1. Solve for $L: 139+L+982=1,388$

Write answers here:
2. When graphing on the coordinate plane, the vertical axis is called the $\qquad$ —.

1. $\qquad$
2. $0.425+0.175=$
3. $67 \times Z=2278$
4. What polygon has perpendicular diagonals?
5. $\qquad$
6. $\qquad$
7. $\qquad$
8. Find area and perimeter:

9. $\qquad$
10. $\qquad$
11. $\qquad$
12. $\qquad$
13. Simplify: $6+7 \times 2$
14. If the letters in the word "math" are written on cards, what is the
15. $\qquad$ probability of picking one card at random and it being from the first half of the alphabet?
16. $\qquad$
17. Complete the pattern: $3,8,13,18,23$, $\qquad$ , $\qquad$ ,
$\frac{1}{3}$ of $\frac{1}{4}=\frac{1}{12}$


Solve This!
\$1.75

## Geometry Gems

Answers will vary

## Probability Pizzazz

120

## M athematically Speaking

$6 R+4 \frac{5}{12} S$

Keeping Skills Sharp

1. 267
2. $y$-axis
3. 0.6
4. 34
5. rhombus, kite, square
6. $A=36$ in $^{2} \quad P=24$ in
7. 18
8. 20
9. $\frac{3}{4}$
10. $28,33,38$
11. Write 0.25 as a percent.
12. Four quarts $=$ $\qquad$ cups
13. Six meters $=$ $\qquad$ centimeters
14. $\frac{1}{4}+\frac{3}{4}$
15. Two minutes $=$ $\qquad$ seconds
16. Compare and order from least to greatest:

$$
\frac{1}{2}, \frac{1}{4}, 1, \frac{3}{4}
$$

7. What are the factors of 12 ?
8. $0.36+5$
9. $\frac{2}{3} \times \frac{4}{5}$
10. $425+175$

## Mental Math

1. $25 \%$
2. 16
3. 600
4. 1
5. 120 seconds
6. $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}, 1$
7. $1,2,3,4,6,12$
8. $\quad 5.36$
9. $\frac{8}{15}$
10. 600
