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# Alaska

Comprehensive System of Student Assessment

## Standards Based Assessments

Grade 6

Reading ★ Writing ★ Mathematics

Practice Test Book



Spring 2007

Alaska Department of Education & Early Development

Name:

## MATHEMATICS PRACTICE TEST

You may use the Mathematics Reference Sheet any time during the test.

1. A cubic inch of water weighs 0.036 pound. Which fraction is equal to the weight of a cubic inch of water?

A  $\frac{1}{360}$

B  $\frac{1}{36}$

C  $\frac{36}{1,000}$

D  $\frac{36}{100}$

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2. A scale showed a weight of 38 ounces. Which weight shown below is equal to 38 ounces?

A 2 pounds, 6 ounces

B 2 pounds, 8 ounces

C 3 pounds, 2 ounces

D 3 pounds, 8 ounces

## MATHEMATICS PRACTICE TEST

3. Myra bicycled 3 days in a row.
- She traveled 12.87 miles on the first day.
  - She traveled 19.04 miles on the second day.
  - She traveled 22.86 miles on the last day.

What is Myra's total mileage rounded to the nearest tenth?

- A 50.0 miles  
B 54.6 miles  
C 54.8 miles  
D 55.0 miles
- 

4. Leo noticed that the number series below followed a pattern.

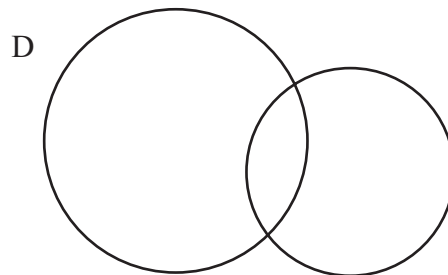
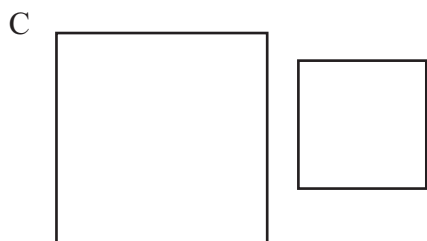
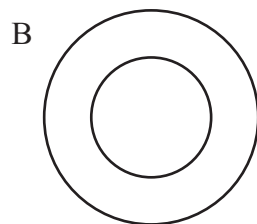
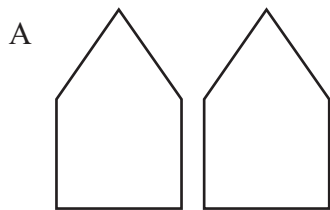
3, 9, 15, 21, ?

What is the next number in the pattern?

- A 22  
B 24  
C 27  
D 30

## MATHEMATICS PRACTICE TEST

5. Which set shows congruent shapes?



**Turn to page 23 in your practice test answer booklet to complete question 6.**

## MATHEMATICS PRACTICE TEST

7. For a party, all the pies were cut into sixths. After the party, 26 pieces were left. Which mixed number represents the total number of pies left?

- A  $3\frac{2}{6}$  pies
  - B 4 pies
  - C  $4\frac{2}{6}$  pies
  - D 20 pies
- 

8. Anthony was at work for 6 hours and 50 minutes. He arrived at work at 8:25 AM. At what time did Anthony leave work?

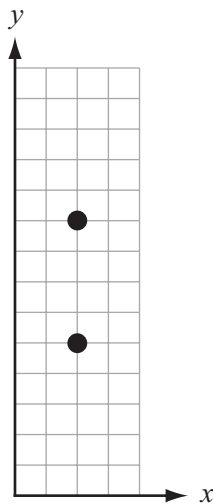
- A 1:35 PM
- B 2:15 PM
- C 3:15 PM
- D 3:35 PM

## MATHEMATICS PRACTICE TEST

9. It snowed 4 times during October. The snowfall amounts were 0.75 inches, 1.93 inches, 4.73 inches, and 2.33 inches. What was the total snowfall for October?
- A 7.64 inches
  - B 7.74 inches
  - C 9.64 inches
  - D 9.74 inches
- 
10. Victoria wrote a story about a monster that doubles its weight every day. On the first day, the monster weighed 250 pounds. On what day did the monster first weigh 4,000 pounds?
- A day 4
  - B day 5
  - C day 6
  - D day 8

## MATHEMATICS PRACTICE TEST

11. There are 2 restaurants in River City located at map points  $(2, 5)$  and  $(2, 9)$ .



Ben is building a new restaurant located halfway between the existing restaurants. What is the location of Ben's restaurant?

- A  $(2, 13)$
- B  $(2, 7)$
- C  $(2, 4)$
- D  $(2, 1)$

**Turn to page 25 in your practice test answer booklet to complete question 12.**

## MATHEMATICS PRACTICE TEST

13. In a school fundraiser, each class recorded the amount of money they earned last week. Which type of graph would be most appropriate for displaying this information?
- A bar graph
  - B circle graph
  - C line graph
  - D pictograph

- 
14. The table below shows approximate flight times between Petersburg and other cities.

**Flight Times From Petersburg**

To	Time (in minutes)
Anchorage	170
Seattle	150
Ketchikan	45
Juneau	30
Sitka	35

What is the mean flight time?

- A 45 minutes
- B 86 minutes
- C 140 minutes
- D 170 minutes



## MATHEMATICS PRACTICE TEST

15. Kirima bought 4 jackets for her children. Each jacket cost \$37.19 with tax added. What was the total cost of the 4 jackets?

- A \$ 81.76
  - B \$128.46
  - C \$128.76
  - D \$148.76
- 

16. Sheena started the pattern shown below.

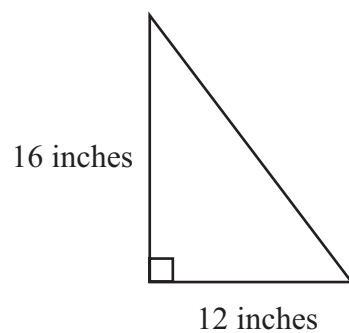
120, 60, 90, 30, 60, ...

Which rule could she have used to create her pattern?

- A subtract 60 from a number and then add 30
- B decreasing numbers that are multiples of 10
- C factors of 120
- D divide a number by 2 and then subtract 30 from the same number

## MATHEMATICS PRACTICE TEST

17. A triangle is shown below.



What is the area of the triangle in square inches?

- A 56
- B 96
- C 192
- D 384

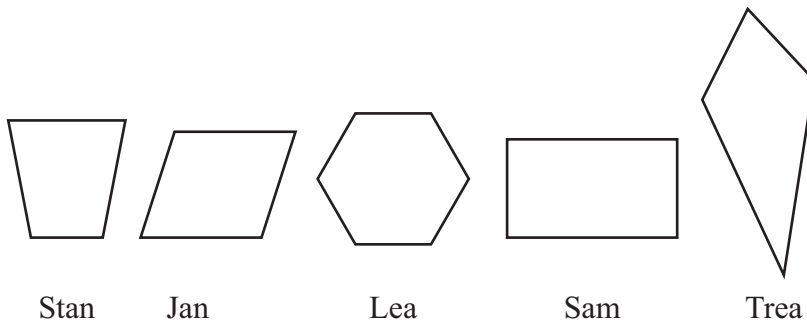
**Turn to page 27 in your practice test answer booklet to complete question 18.**

## MATHEMATICS PRACTICE TEST

19. Ms. Green asked her class for volunteers to work at the school carnival. Each student could volunteer to do only one job. She had  $\frac{1}{3}$  of the class volunteer to decorate,  $\frac{1}{4}$  to serve food, and  $\frac{1}{6}$  to clean up. Exactly what fraction of Ms. Green's students volunteered?

- A  $\frac{1}{13}$
  - B  $\frac{3}{13}$
  - C  $\frac{3}{12}$
  - D  $\frac{9}{12}$
- 

20. Mr. Smith gave each of these children a polygon.



He asked those who had parallelograms to stand up. Which children should stand up?

- A Jan and Sam
- B Sam and Trea
- C Stan, Jan, and Sam
- D Jan, Lea, and Sam

# MATHEMATICS PRACTICE TEST

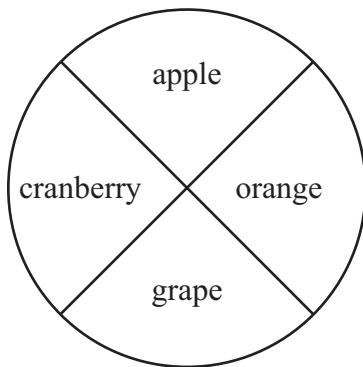
21. Jolene asked 60 students to name their favorite juice. She recorded the data in the table below.

**Favorite Juices**

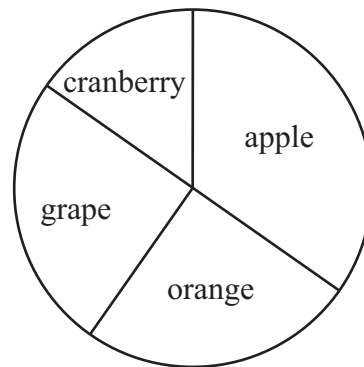
Juice Type	Number of Responses
apple	20
orange	15
grape	15
cranberry	10

Which circle graph represents Jolene's data?

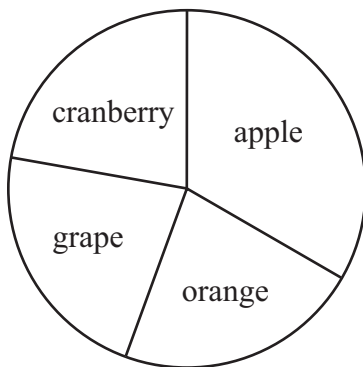
**A Favorite Juices**



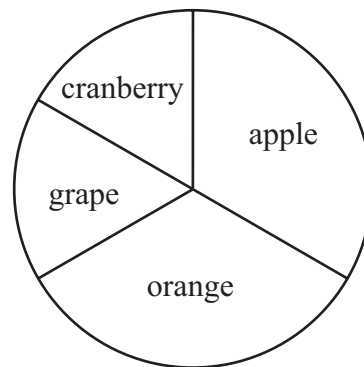
**B Favorite Juices**



**C Favorite Juices**



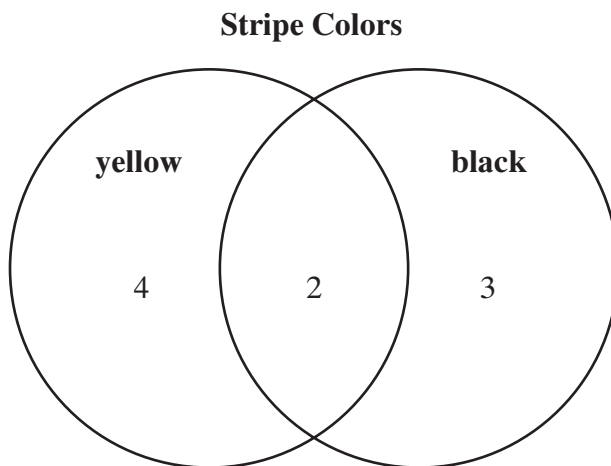
**D Favorite Juices**



## MATHEMATICS PRACTICE TEST

22. Herman's bread recipe required 1 cup of water, but Herman only had a measuring cup with fluid-ounce markings. How many fluid ounces did the recipe require?
- A 8
  - B 10
  - C 12
  - D 16
- 

23. The Venn diagram shows the colors of stripes on the kittens in a new litter.



How many kittens had **some** yellow stripes?

- A 2
- B 4
- C 6
- D 9

## MATHEMATICS PRACTICE TEST

24. The distance from Anchorage, Alaska, to Honolulu, Hawaii, is 2,778 miles. Which shows the number 2,778 written in expanded form?

- A  $(27 \times 1,000) + (7 \times 10) + (8 \times 1)$
  - B  $(2 \times 1,000) + (7 \times 100) + (78 \times 10)$
  - C  $(2 \times 10,000) + (7 \times 100) + (7 \times 10) + (8 \times 1)$
  - D  $(2 \times 1,000) + (7 \times 100) + (7 \times 10) + (8 \times 1)$
- 

25. The school office ordered 24 boxes of pens. Their total cost was \$191.52. What was the cost of 1 box of pens?

- A \$7.02
- B \$7.20
- C \$7.98
- D \$8.00

## MATHEMATICS PRACTICE TEST

26. Jeff recorded his bowling scores for 8 games.

104, 122, 142, 136, 155, 138, 142, 95

What is the median of Jeff's scores?

- A 60
- B 137
- C 140
- D 142

- 
27. A baker made the chart below to show how many brownies he baked based on how many bowls of batter he made.

**Baker's Brownies**

Number of Bowls	Number of Brownies
3	36
6	72
9	108
12	144

What is the relationship between the number of bowls of batter and the number of brownies made?

- A The number of brownies equals the number of bowls divided by 12.
- B The number of brownies equals the number of bowls multiplied by 12.
- C The number of brownies equals 33 more than the number of bowls.
- D The number of brownies equals 10 times the number of bowls plus 6.

## MATHEMATICS PRACTICE TEST

28. To determine how much her plant grew, Leisha subtracted  $\frac{5}{4}$  inches from  $\frac{15}{8}$  inches. Which step is **most** useful to perform the subtraction?
- A Find the greatest common factor of 5 and 15.
  - B Find the greatest common factor of 4 and 8.
  - C Find the least common multiple of 5 and 15.
  - D Find the least common multiple of 4 and 8.
- 
29. It is 6:00 PM in Fairbanks when Sal calls Jim. Jim is in Chicago. The time in Chicago is 3 hours later than the time in Fairbanks. What time is it in Chicago when Jim gets Sal's phone call?
- A 3:00 PM
  - B 5:00 PM
  - C 9:00 PM
  - D 10:00 PM

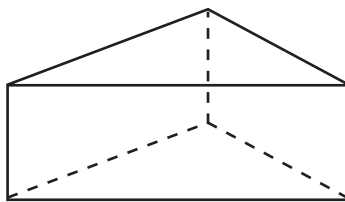


## MATHEMATICS PRACTICE TEST

30. Liam took pictures with his camera using a roll of film that could hold 24 pictures. At the end of the day, Liam had 6 pictures left on the roll of film. Use the equation  $24 - x = 6$  to find how many pictures Liam took that day. What is the value of  $x$ ?
- A  $x = 18$
  - B  $x = 19$
  - C  $x = 22$
  - D  $x = 30$
- 

31. Lily designed the package below to hold the bars of soap she makes.

**Lily's Package**



What is the shape of Lily's package?

- A cone
- B pyramid
- C rectangular prism
- D triangular prism

**END SESSION**

