

## Chapter 8 Practice Test #2

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1. Refer to the advertisement given below.

<p><b>Feed 6 people for \$10!</b></p> <p>You can, when you buy a 1-foot cold-cut party submarine sandwich.</p>
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- a. Complete the rate table.

inches		8	12		1
people	2	4	6	3	

- b. If 6 people share a sandwich equally, how many inches will each person get?  
c. What is the cost per person?  
d. Explain how you figured out the cost per person.

2. Use cross multiplication to solve the proportion.

$$\frac{3}{10} = \frac{15}{q}$$

Use cross multiplication to solve the proportion.

3.  $\frac{4}{5} = \frac{c}{35}$

4.  $\frac{b}{7} = \frac{16}{28}$

5. Use cross multiplication to solve the proportion.

$$\frac{2}{d} = \frac{10}{20}$$

Complete the rate table. Use the table to write an open proportion. Solve the proportion. Write the answer to the problem.

6. Some species of bamboo grow at a rate of 2 inches every 6 hours. About how many hours does it take to grow 5 inches?

inches	3	2	4	5	
hours		6			1

7. Mr. Macaroni rode his motorcycle 140 miles on 5 gallons of gasoline. How far can he ride on 20 gallons?

miles	1	140		
gallons		5	1	20

Write proportions to solve the problems.

8. Jennifer bought 6 boxes of thumb tacks for \$8. How many boxes of thumb tacks can she buy with \$8?

$$\frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

\_\_\_\_\_ boxes of thumb tacks

9. Jennie was reading a mystery story. She read 30 pages in 30 minutes. How many pages did she read in 60 minutes?

$$\frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

\_\_\_\_\_ pages

Write proportions to solve the problems.

10. Don missed 70% of the questions on the last science test. How many questions did he miss if there were 20 questions on the test?

$$\frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

\_\_\_\_\_ questions

11. Donna went to bat 64 times last season. She had 16 hits. What percent of the time did she make a hit?

$$\frac{\boxed{\phantom{000}}}{\boxed{\phantom{000}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

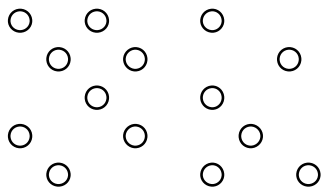
\_\_\_\_\_ %

12. The table below shows the calorie and fat content in 1 cup of two kinds of yogurt.  
a. Complete the table.

Food Label	Food	Calories from Fat	Estimated Fat Percent
		Total Calories	
Nutrition Facts Serving Size 1 cup (225 g) Serving Per Container 1 <hr/> Amount Per Serving <hr/> Calories 180    Calories from Fat 43	blueberry yogurt		
Nutrition Facts Serving Size 1 cup (225 g) Serving Per Container 1 <hr/> Amount Per Serving <hr/> Calories 230    Calories from Fat 73	strawberry yogurt		

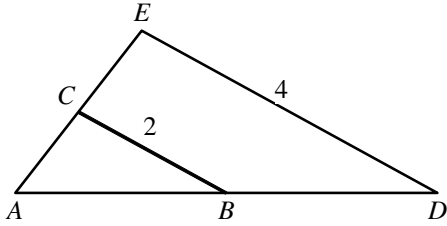
- b. Explain how you estimated the percent of fat for blueberry yogurt.

13. a. Shade  $\frac{4}{7}$  of the circles below.



- b. What percent of the circles is shaded?  
 c. What is the ratio of shaded circles to unshaded circles?  
 d. How many more unshaded circles would you have to draw so that the ratio of shaded circles to unshaded circles would be 4 to 5?
14. Four out of every 5 cards are number-side down. If 10 cards are number-side up, how many cards are there in all?
15. The ratio of number-side up to number-side down cards is 1 to 3. If there are 60 cards altogether, how many cards are number-side up?

16. a. Triangle  $ABC$  and  $ADE$  are similar triangles. Sides  $AB$  and  $AE$  are each 2 feet long. What is the length of side  $AD$ ?



- b. What is the size-change factor?

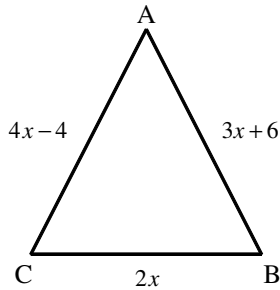
Solve. Follow the rules for the order of operations.

17.  $8 + 40/4 * 12 =$  \_\_\_\_\_

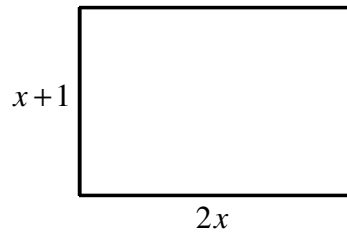
18.  $6 * 7 - 4^5 + 3 =$  \_\_\_\_\_

19.  $10 * 8 + 6 - 4 \div 2 =$  \_\_\_\_\_

20. If  $x = 5$  m, what is the perimeter of the triangle  $ABC$ ?



21. If  $x = 4$ , find the area of the rectangle.



Divide.

22.  $50.24 \div 8 = \underline{\hspace{2cm}}$

23.  $51.852 \div 8.7 = \underline{\hspace{2cm}}$

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a. 

inches	4	8	12	6	1
people	2	4	6	3	$\frac{1}{2}$

b. 2 inches

c. \$1.67

[1] d. Sample answer: I divided 10 by 6. \_\_\_\_\_

[2]  $q = 50$  \_\_\_\_\_

[3]  $c = 28$  \_\_\_\_\_

[4]  $b = 4$  \_\_\_\_\_

[5]  $d = 4$  \_\_\_\_\_

inches	3	2	4	5	0.333
hours	9	6	12	15	1

$$\frac{\boxed{2}}{\boxed{6}} = \frac{\boxed{5}}{\boxed{n}}$$

[6] 15 hours \_\_\_\_\_

miles	1	140	28	560
gallons	0.05	5	1	20

$$\frac{\boxed{140}}{\boxed{5}} = \frac{\boxed{n}}{\boxed{20}}$$

[7] 560 miles \_\_\_\_\_

[8]  $\frac{\boxed{\text{boxes of thumb tacks}}}{\boxed{\text{dollars}}} = \frac{\boxed{6}}{\boxed{8}} = \frac{\boxed{p}}{\boxed{8}}$ ; 6 boxes of thumb tacks \_\_\_\_\_

[9]  $\frac{\boxed{\text{pages}}}{\boxed{\text{minutes}}} = \frac{\boxed{30}}{\boxed{30}} = \frac{\boxed{q}}{\boxed{60}}$  ; About 60 pages

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[10]  $\frac{\boxed{\text{question missed}}}{\boxed{\text{number of questions}}} = \frac{\boxed{70}}{\boxed{100}} = \frac{\boxed{b}}{\boxed{20}}$  ; 14 questions

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[11]  $\frac{\boxed{\text{hits}}}{\boxed{\text{times at bat}}} = \frac{\boxed{16}}{\boxed{64}} = \frac{\boxed{t}}{\boxed{100}}$  ; 25 %

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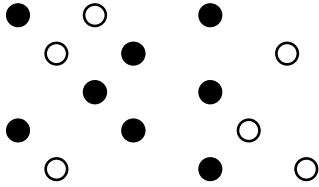
a.

Food Label	Food	$\frac{\text{Calories from Fat}}{\text{Total Calories}}$	Estimated Fat Percent
Nutrition Facts Serving Size 1 cup (225 g) Serving Per Container 1 <hr/> Amount Per Serving <hr/> Calories 180    Calories from Fat 43	blueberry yogurt	$\frac{43}{180}$	About 24
Nutrition Facts Serving Size 1 cup (225 g) Serving Per Container 1 <hr/> Amount Per Serving <hr/> Calories 230    Calories from Fat 73	strawberry yogurt	$\frac{73}{230}$	About 32

[12] b. Answers will vary.

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a.



b. 57 %

c. 8 to 6

[13] d. 4 more circles

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[14] 50 cards

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[15] 15 cards

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a. 4 ft

[16] b. 2

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[17] 128

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[18] -979

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[19] 84

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[20] 47 m

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[21] 40 square units

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[22] 6.28

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[23] 5.96

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