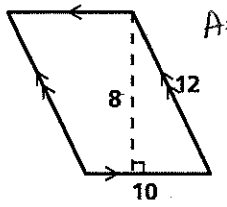
Name _____ Class _____ Date _____

Chapter Test — Form A

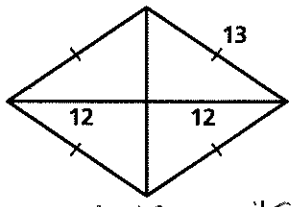
Chapter 10

Find the area of each figure described or shown. If your answer is not an integer, round to the nearest tenth.

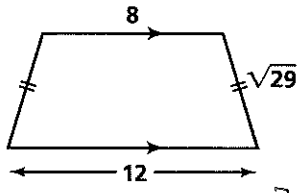
1. equilateral triangle with side length of 6 ft $A = 15.6\ ft^2$
2. regular hexagon with side length of 4 cm $A = 41.6\ cm^2$
3. isosceles triangle with legs each 20 ft long and a base 24 ft long $A = 192\ ft^2$

4. 

$A = 80\ units^2$

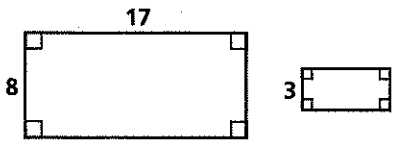
5. 

$A = 120\ units^2$

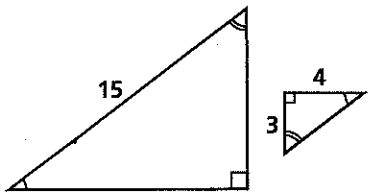
6. 

$A = 50\ units^2$

For each pair of similar figures, find the ratio of the area of the first figure to the area of the second.

7. 

$\frac{64}{9}$

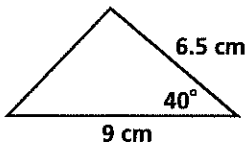
8. 

$\frac{9}{1}$

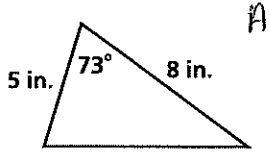
9. $\triangle RST \sim \triangle XYZ$ and $RS = \frac{3}{2}XY$. Which of the following is true?

   A. The ratio of perimeters of $\triangle RST$ to $\triangle XYZ$ is $\frac{9}{4}$.
   B. $m\angle R = \frac{3}{2}m\angle X$
   C. The ratio of areas of $\triangle XYZ$ to $\triangle RST$ is $\frac{9}{4}$.
   D. none of the above

Find the area of each polygon. Round your answers to the nearest tenth.

10. 

$A = 18.8$

11. 

$A = 19.1$

12. a regular octagon with apothem 9 ft $A = 268.4\ ft^2$
13. a regular hexagon with radius 8 in. $A = 166.3\ in^2$
14. a regular pentagon with perimeter 50 cm $A = 172.0\ cm^2$

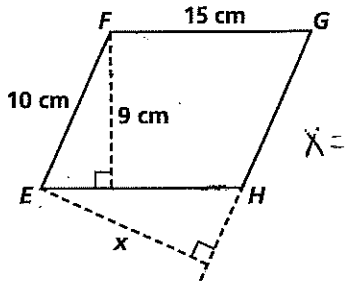
Name _____ Class _____ Date _____

Chapter Test (continued) Form A

Chapter 10

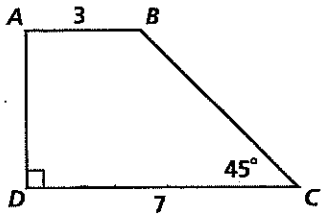
15. Two sides of a rhombus form a 60° angle. The length of each side is 8. Explain how to find the area of the rhombus, and then calculate the area. $A = 32\sqrt{3}$ units^2

16. *EFGH* is a parallelogram. Find x to the nearest tenth.



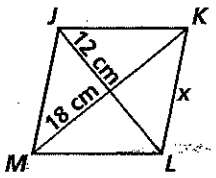
$x = 13.5$

17. Find the area of trapezoid *ABCD*.



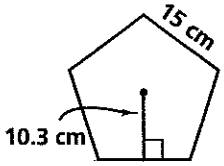
$A = 20$ units^2

18 *JKLM* is a rhombus. Find x to the nearest tenth.



21.6

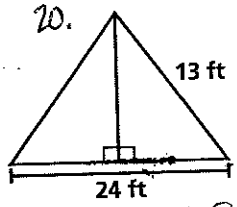
19. Find the area of the regular pentagon to the nearest whole number.



$A = 386$ cm^2

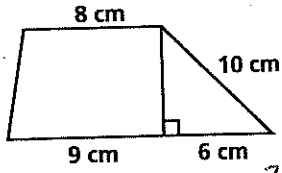
Find the area for #20–22

20.



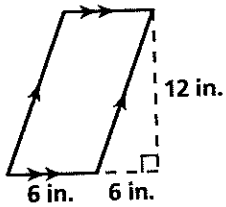
$A = 625$ ft^2

21.



$A = 92$ cm^2

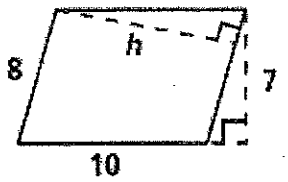
22.



$A = 72$ in^2

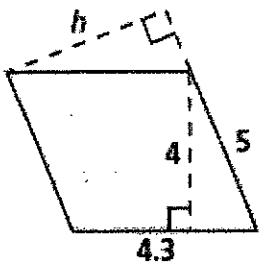
23. Find the value of h in each parallelogram.

a.



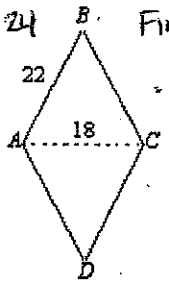
$h = 8.75$

b.



$h = 3.44$

24 Find the Area



$A = 360$ units^2