

Chapter 5 Test Study Guide

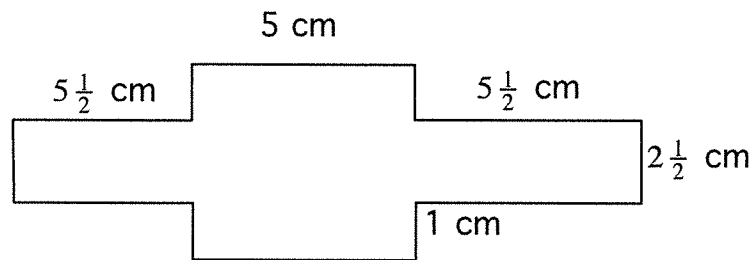
Name _____

Date: _____

Remember labels and box your answer

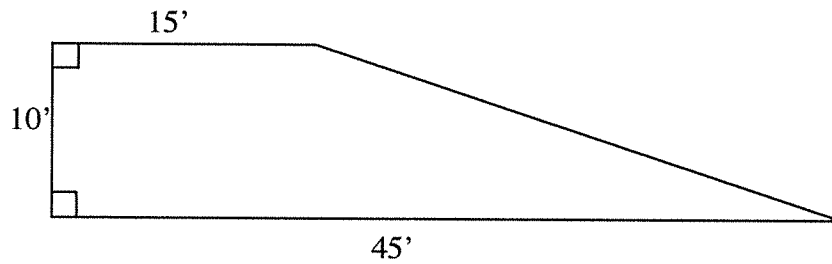
Class: _____

1. Calculate the area of the shape below. Draw lines in the diagram if it helps you. Show all of your subproblems and calculations. You can assume that the shape is symmetric and all angles are right angles.



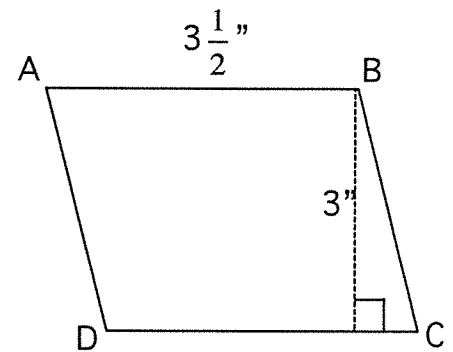
2. Show all of your work to solve each problem below:
- a. A jogger is running around a $\frac{3}{4}$ mile track. He was $\frac{2}{3}$ around the track when he stopped. How far did he travel before stopping?
- b. A rectangular plot of land is $\frac{1}{2}$ mile long and $\frac{1}{4}$ mile wide. What is the area of the plot in square miles?
- c. Johnny made pancakes for breakfast. The recipe called for $2\frac{1}{2}$ cups flour. He only made $\frac{1}{3}$ of the recipe. How much flour did he need?

3. Show your work to calculate the area of the shape below.



6. In the parallelogram at right,

- Identify the base and the height.
- Show your work to calculate the area.
- Draw a rectangle with the same area as the parallelogram. How do you know it has the same area?



- Draw a triangle with the same area as the parallelogram. How do you know it has the same area?
- Draw a trapezoid with the same area as the parallelogram. How do you know it has the same area?

7. Show your work to simplify the following expressions:

a. $(0.01)^3$

b. $(4.5)^2$

c. $3\frac{1}{3} \cdot 4\frac{1}{5}$

d. $\left(\frac{3}{5}\right)^3$

e. 30% of $2\frac{1}{3}$

f. 0.06 of $\frac{3}{5}$

g. $\left(3\frac{1}{3}\right)^4$

g. 88% of 15%

h. $(3)\left(2\frac{1}{6}\right)\left(1\frac{1}{3}\right) =$

8. Complete the sentences below with one of the following phrases:

is always

can be

is never

- | | | |
|--------------------|-------|-----------------|
| a. A trapezoid | _____ | a quadrilateral |
| b. A square | _____ | a rhombus. |
| c. A polygon | _____ | a rectangle. |
| d. A parallelogram | _____ | a square. |
| e. A rectangle | _____ | a trapezoid |
| f. A rhombus | _____ | a square |
| g. A rectangle | _____ | a square |
| h. A parallelogram | _____ | a polygon |