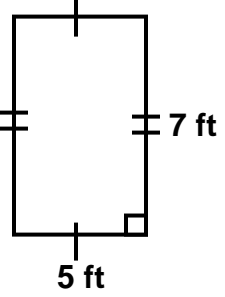
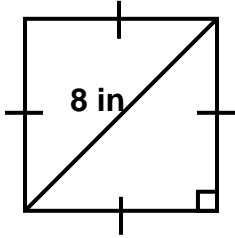
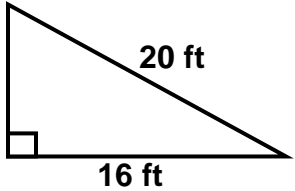
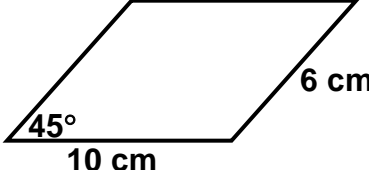
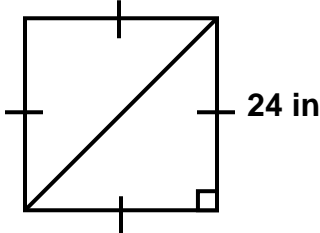


NAME _____ DATE _____ PER. _____

EFFECTS OF CHANGING DIMENSIONS ON AREA

Find a) the area of each figure and b) the area of the figure after it has undergone the indicated changes.

<p>1. a) _____ b) _____</p>		<p>Changes: Width: Twice as long Length: Three times as long</p>
<p>2. a) _____ b) _____</p>		<p>Changes: Height: One-third as long Base: Two times as long</p>
<p>3. a) _____ b) _____</p>		<p>Changes: Height: Twice as long Base: One-third as long</p>
<p>4. a) _____ b) _____</p>		<p>Changes: Height: Twice as long Base: One and a half times as long</p>
<p>5. a) _____ b) _____</p>		<p>Changes: Height: One-third as long Base: One-fourth as long</p>

Find the correct answer for each of the following. Put your answers in the blanks provided. **Work must be shown in order to receive credit!**

6. _____	In Problem#3, what is the percent decrease of the area?
7. _____	The dimensions of a triangle are tripled to form a new triangle. If the area of the new triangle is 54 square feet, how many square feet were in the area of the original triangle?

- _____ 8. If the dimensions of a rectangle are doubled, which of the following best describes an effect on the rectangle?
- F The new area will be 2 times as large as the original area.
 - G The new area will be 8 times as large as the original area.
 - H The new perimeter will be 4 times as large as the original perimeter.
 - J The new perimeter will be 2 times as large as the original perimeter.

Review:

9. Two College Station school buses approach the high school from different directions. Bus 47 is 16 miles due north of the school and bus 63 is 12 miles due west. How far apart are the buses in miles? (Draw a picture)
10. A Post Oak tree outside of Matt's house casts a 12-foot shadow at a certain time of day. At the same time Matt, who is 6 feet tall, casts a 2-foot shadow. How tall is the tree? (Draw a picture)