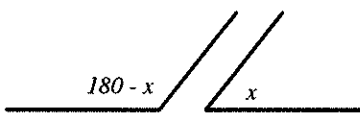
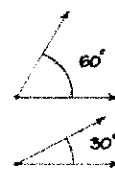


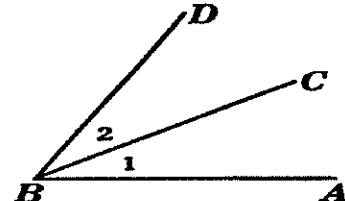


Match each word/concept on the left with the picture depicting that word/concept that word/concept on the right.

<p><u>d</u> 1. Vertical Pair</p>	<p>a. </p>
<p><u>e</u> 2. Adjacent Angles</p>	<p>b. </p>
<p><u>a</u> 3. Supplementary Angles</p>	<p>c. </p>
<p><u>c</u> 4. Linear Pair</p>	<p>d. </p>
<p><u>b</u> 5. Complementary Angles</p>	<p>e. </p>

6. What is the Exterior Angle Theorem?

a. All exterior angles add up to  $180^\circ$

b. The sum of two interior angles of a triangle is equal to the exterior angles of the third angle

c. Exterior angles and interior angles are congruent

d.  $a^2 + b^2 = c^2$

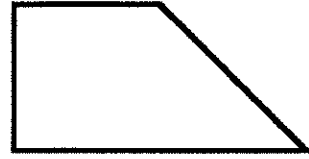
7. Which of the following does BEST describes the following shape?

a. Trapezoid

b. Parallelogram

c. Rectangle

d. Square



8. Which of the following statements is false?

a. Opposite angles of a parallelogram are congruent.

b. All sides of a rhombus are equal to each other.

c. Opposite angles of a trapezoid are congruent.

d. Consecutive interior angles of a rectangle are supplementary.

9. Answer the following questions with True or False.

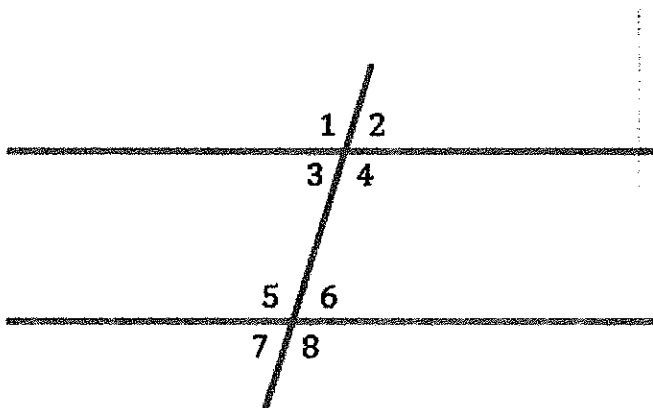
True a)  $\angle 1$  and  $\angle 2$  are supplementary

False b)  $\angle 1$  and  $\angle 7$  are corresponding angles

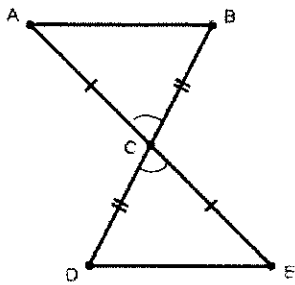
False c)  $\angle 7$  and  $\angle 2$  are alternate interior angles

True d)  $\angle 3$  and  $\angle 5$  are consecutive interior angles

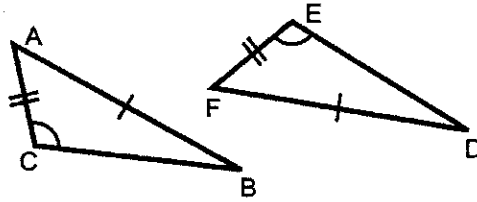
True e)  $\angle 7$  and  $\angle 6$  are congruent



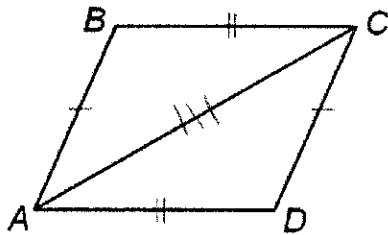
10. Circle whether the following triangles are congruent or not. If yes, state the congruence shortcut.



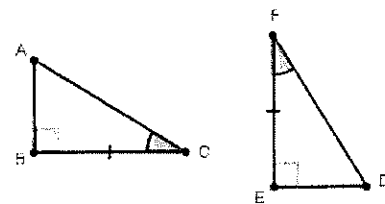
Congruent?  Yes  No  
 Shortcut: SAS



Congruent? Yes  No   
 Shortcut: SSA

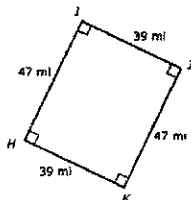
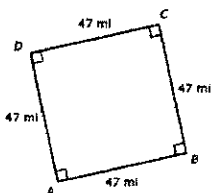
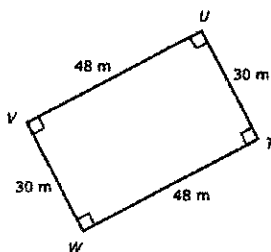
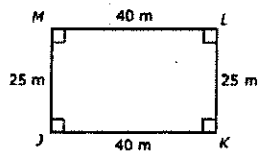


Congruent?  Yes  No  
 Shortcut: SSS



Congruent?  Yes  No  
 Shortcut: ASA

11. Are these shapes similar?



$$\frac{40}{48} = \frac{25}{30}$$

$$0.\overline{83} = 0.\overline{83}$$

yes  no

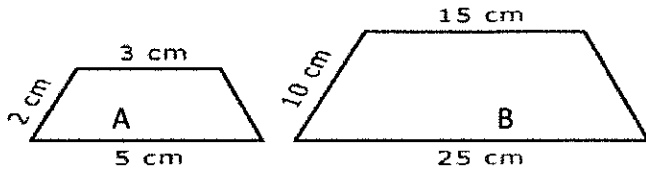
yes  no

$$\frac{47}{47} \neq \frac{47}{39}$$

12. These polygons are similar. Find the scale factor of figure A to figure B.

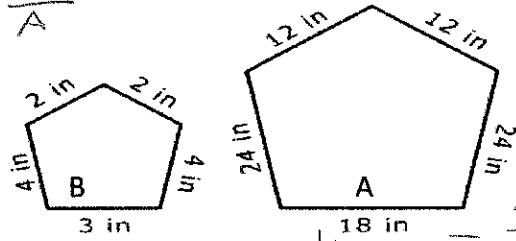
$A \cdot \text{Scale Factor} = B$

$SF = \frac{B}{A}$

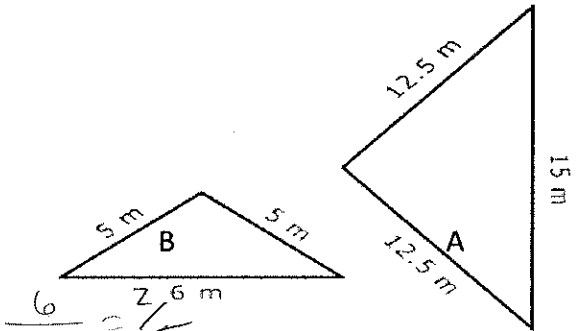


$\frac{25}{5} = 5$

(1.) SF: 5



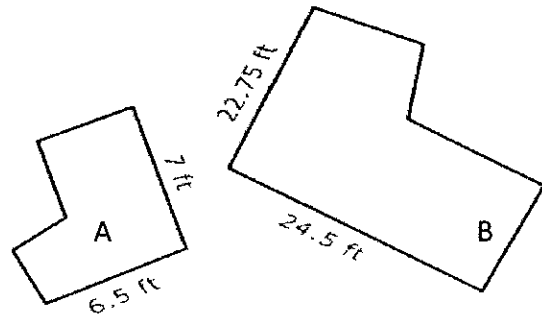
(2.) SF:  $\frac{18}{12}$  or  $0.16\bar{6}$   $\frac{4}{24} = \frac{1}{6}$



$\frac{6}{15} = \frac{2}{5}$

(3.)

SF:  $\frac{2}{5}$  or  $0.4$



(4.)  $\frac{24.5}{7} = \frac{7}{2}$  SF:  $\frac{7}{2}$  or  $3.5$

13. If you know that  $\tan(A) = \frac{36}{15}$ , match each of the sides and angles with their correct measurements below. All measurements have been rounded to the nearest tenth. Make sure to label your triangle.

39 1. AB =  $15^2 + 36^2 = c^2$

36 2. BC =  $225 + 1296 = c^2$

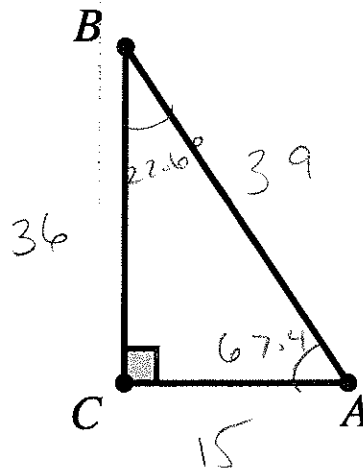
15 3. AC =  $\sqrt{1521} = c^2$   
 $c = 39$

67.4° 4.  $m\angle A = \tan(A) = \frac{36}{15}$

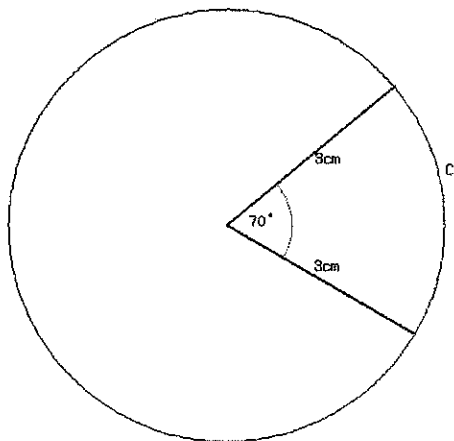
22.6° 5.  $m\angle B = A = \tan^{-1}\left(\frac{36}{15}\right)$

90° 6.  $m\angle C =$

$180 - 90 - 67.4 =$



14. Find all of the following information given the circle below:



$$C = 2\pi r$$

$$C = 2\pi 3$$

$$C = 6\pi$$

$$A = \pi r^2$$

$$A = \pi (3)^2$$

$$A = 9\pi$$

**Circumference:**

Exact:  $6\pi \text{ cm}$

Approximate:  $18.85 \text{ cm}$

**Area:**

Exact:  $9\pi \text{ cm}^2$

Approximate:  $28.27 \text{ cm}^2$

**Sector Area:**

Exact:  $1.75\pi \text{ cm}^2$

Approximate:  $5.5 \text{ cm}^2$

**Arc Length:**

Exact:  $1.166\pi \text{ cm}$

Approximate:  $3.67 \text{ cm}$

$$A_{\text{sector}} = \frac{\text{angle}}{360} \cdot \pi r^2$$

$$A_{\text{sector}} = \frac{70}{360} \cdot 9\pi$$

$$L_{\text{arc}} = \frac{\text{angle}}{360} \cdot 2\pi r$$

$$L_{\text{arc}} = \frac{70}{360} \cdot 6\pi$$

