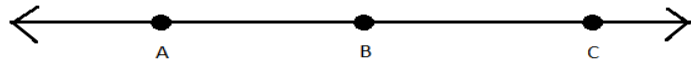


Geometry A EXAM REVIEW

Directions: Below are selected questions from previous tests. Your exam will be 50-60 multiple choice questions based on questions you've seen on previous assessments. Use these to review and practice for your exam, along with reviewing old quizzes and tests. HAPPY STUDYING!! ☺

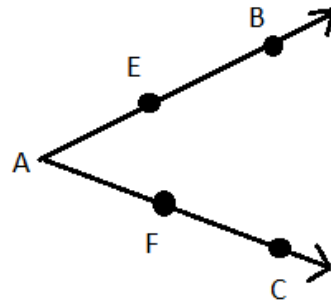
Use correct symbols and notation in each answer.

1. Name the line at the right.



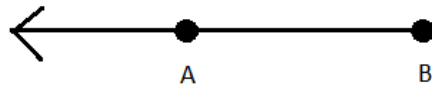
Use figure to the right for questions 2-5.

2. Name the angle.
3. Name any segment.
4. Classify the angle named in question 2 as obtuse, acute, right, or reflexive.



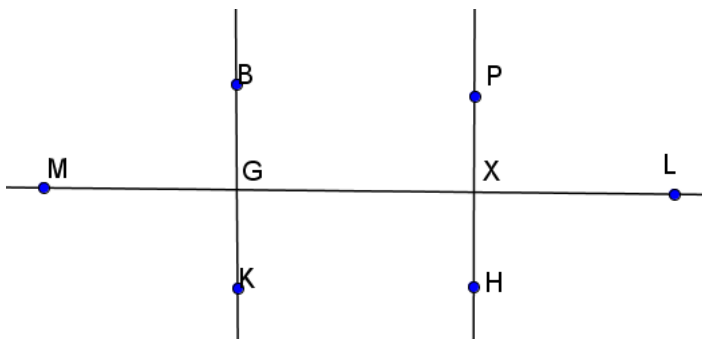
5. Find the distance between points A (1, -2) and B (-3, 4).

6. Name the ray.



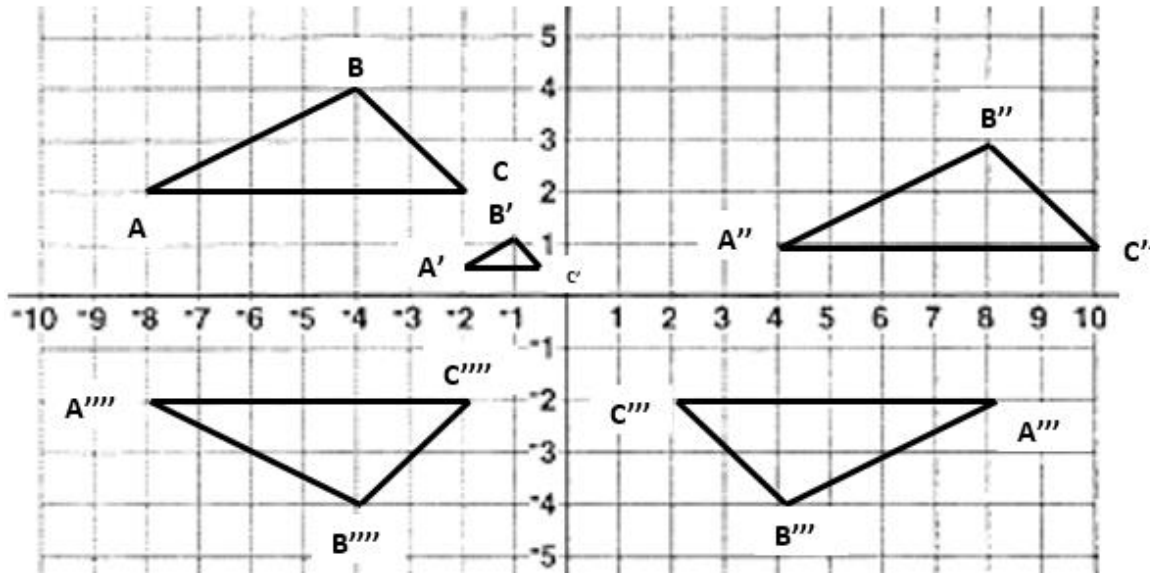
7. Name the intersection of planes GIK and GIH.

Use the following figure for problems 8 - 10.



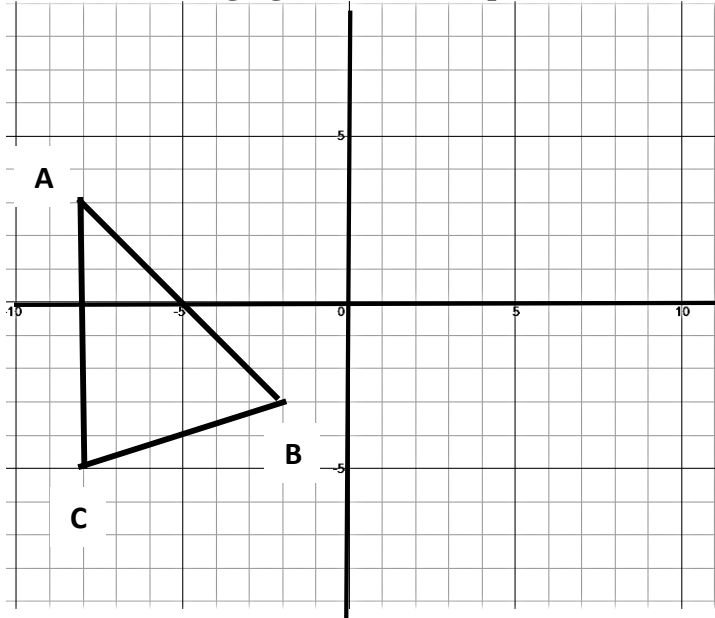
8. What is the vertex of angle GXP?
9. Name a pair of lines that appear to be parallel.
10. Name a pair of lines that appear to be perpendicular.

Use the following figure for problems 1-4.



1. Specify the type of transformation from $\triangle ABC$ to $\triangle A'B'C'$ as a translation, rotation, dilation, or reflection and write a rule to describe the transformation.
2. Specify the type of transformation from $\triangle ABC$ to $\triangle A''B''C''$ as a translation, rotation, dilation, or reflection and write a rule to describe the transformation.
3. Specify the type of transformation from $\triangle ABC$ to $\triangle A'''B'''C'''$ as a translation, rotation, dilation, or reflection, and write a rule to describe the transformation.
4. Specify the type of transformation from $\triangle ABC$ to $\triangle A''''B''''C''''$ as a translation, rotation, dilation, or reflection, and write a rule to describe the transformation.

Use the following figure to answer questions 1 – 9.



Reflect ΔABC over the y axis. Write the coordinates for each vertex on your answer document.

1. $A' =$
2. $B' =$
3. $C' =$

Rotate ΔABC 90° clockwise. Write the coordinates for each vertex on your answer document.

4. $A' =$
5. $B' =$
6. $C' =$

Translate ΔABC using the following rule $(x,y) \rightarrow (x+6, y-3)$. Write the coordinates for each vertex on your answer document.

7. $A' =$
8. $B' =$
9. $C' =$

1. Tell whether the transformation appears to be a rigid motion.

Preimage

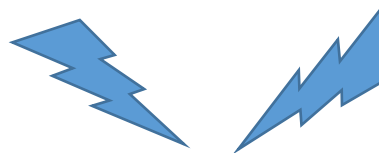


Image

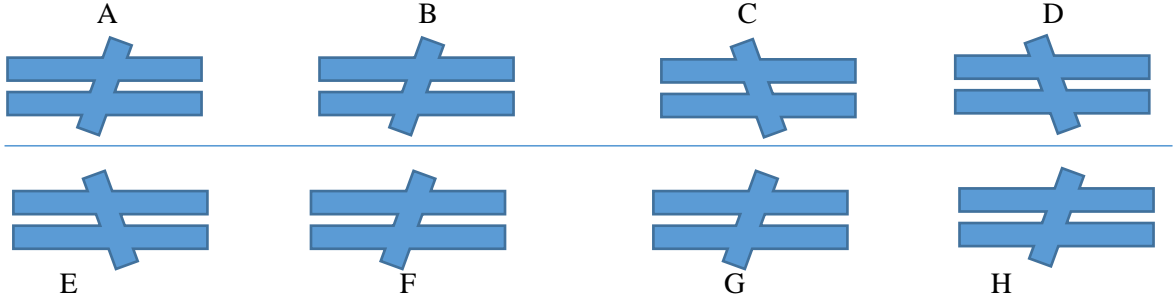


- 2.

3. Identify the transformation at the right.



Use the following diagram for question 4-5.



4. What transformation maps figure F onto figure G?
5. Which two transformations could you use to map figure A onto figure F?

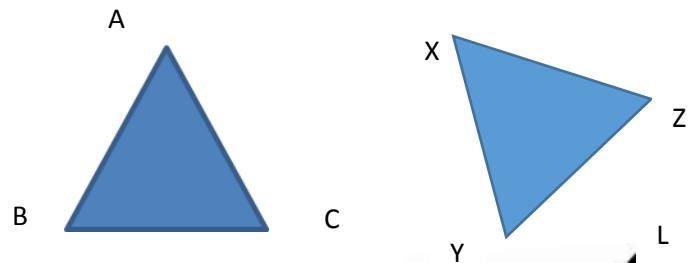
6. Do the figures at the right appear to be congruent?



7. Explain your answer for question 6.
8. Name the three rigid motion transformations.

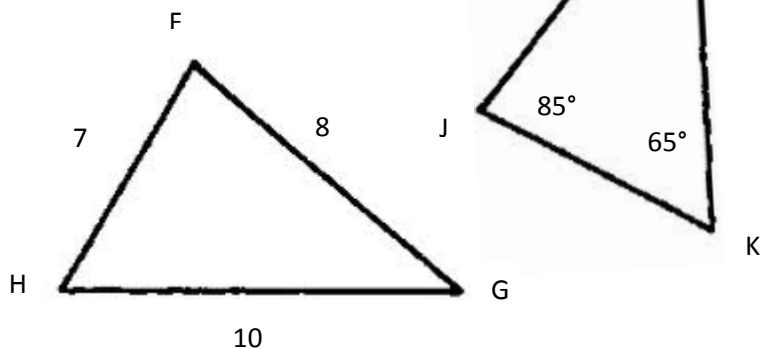
Given $\triangle ABC \cong \triangle XYZ$.

1. Name the corresponding side to \overline{AC} .
2. Name the corresponding angle to $\angle Y$.

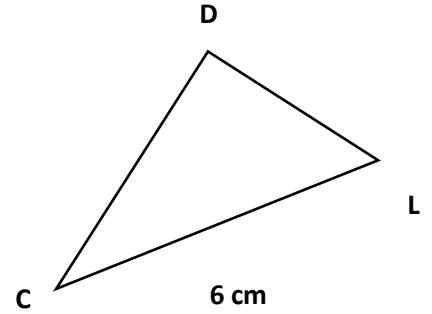
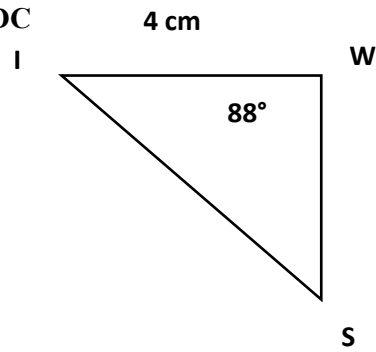
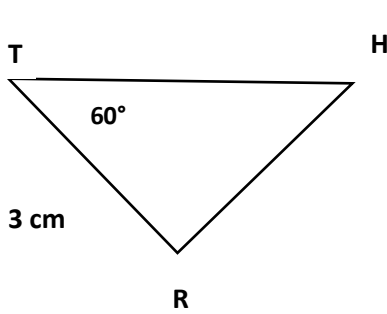


Given $\triangle FHG \cong \triangle JKL$.

3. Determine the length of \overline{JK} .
4. Determine the measure of $\angle G$.



Given $\triangle TRH \cong \triangle SWI \cong \triangle LDC$



5. $m\angle R =$ _____

8. $CD =$ _____

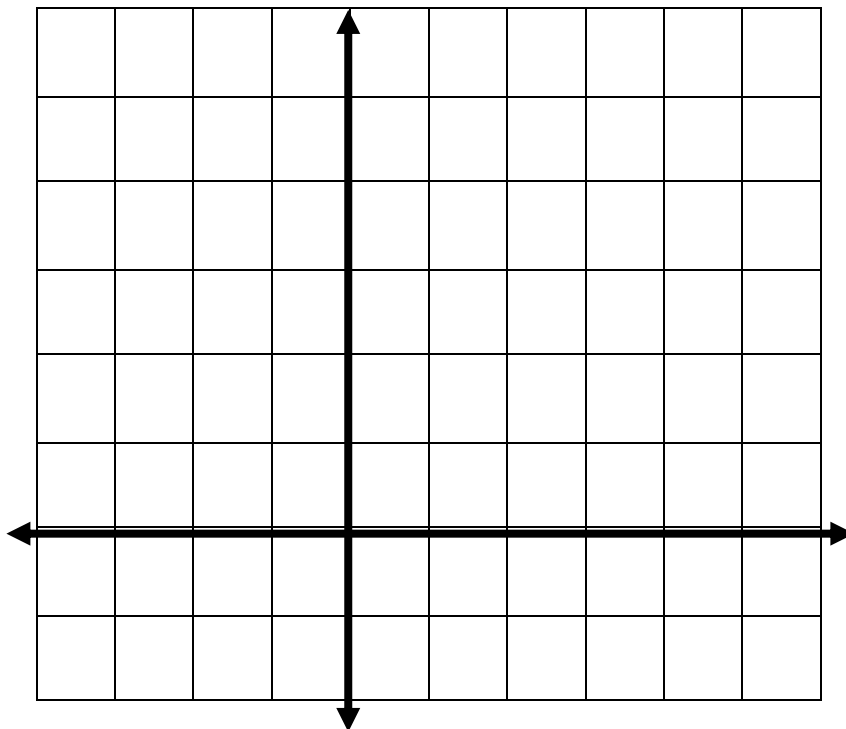
6. $m\angle C =$ _____

9. $HT =$ _____

7. $m\angle S =$ _____

10. $SW =$ _____

Use with questions 11-15.



11. The coordinates for $\triangle ABC$ and $\triangle DEF$ are listed below.

$A(0, 0)$ $B(0, 4)$ $C(3, 0)$

$D(2, 2)$ $E(2, 6)$ $F(5, 2)$

Given: $\angle B \cong \angle E$ and $\angle C \cong \angle F$

Prove that $\triangle ABC \cong \triangle DEF$ by CPCTC.

Statement	Reason
$\angle B \cong \angle E$ and $\angle C \cong \angle F$	11.
$\angle A \cong \angle D$	12.
$AB \cong DE$, $AC \cong DF$	13.
$BC \cong EF$	14.
$\triangle ABC \cong \triangle DEF$	15.

What are the 4 postulates that can be used to prove triangle congruence? What are 2 combinations of sides and angles that DO NOT work?

Work

DO NOT work

1. _____

5. _____

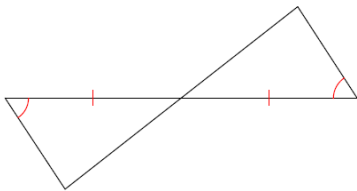
2. _____

6. _____

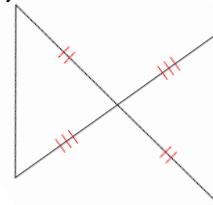
3. _____

4. _____

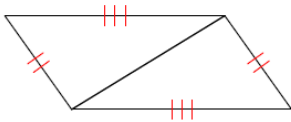
For question 2 -7, determine if the two triangles are congruent. If they are, tell which postulate can be used to verify their congruence. If there is not enough information, write "cannot be determined."



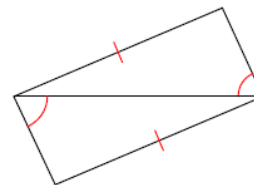
7. _____



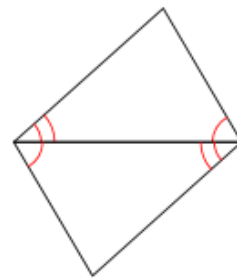
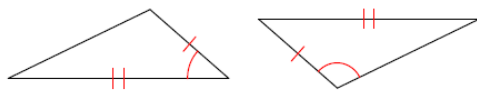
8. _____



9. _____



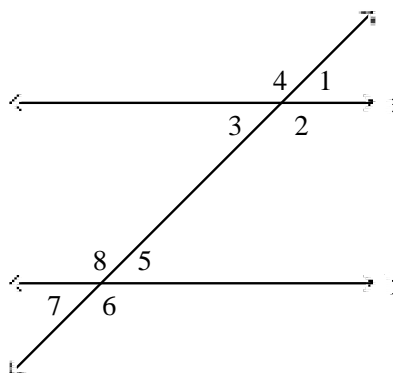
10. _____



11. _____

12. _____

For questions 1-4, decide whether each statement about angle pair relationships is true or false. If it is true, give two angles for which the relationship is true. If it is false, rewrite the statement so it is correct. Use the diagram below.



1. *Same side interior angles are congruent.*

True, for example \angle _____ and \angle _____

False. The correct statement would be:

2. *Vertical angles are supplementary.*

True, for example \angle _____ and \angle _____

False. The correct statement would be:

3. *Alternate exterior angles are supplementary.*

True, for example \angle _____ and \angle _____

False. The correct statement would be:

4. *A linear pair is congruent.*

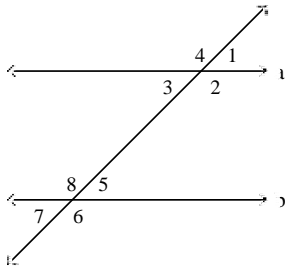
True, for example \angle _____ and \angle _____

False. The correct statement would be:

Use the figure below to complete the proof.

Given: $a \parallel b$

Prove: $\angle 2 \cong \angle 8$



Choose from A – D below to fill in the blanks with the correct letter to complete the reasoning.

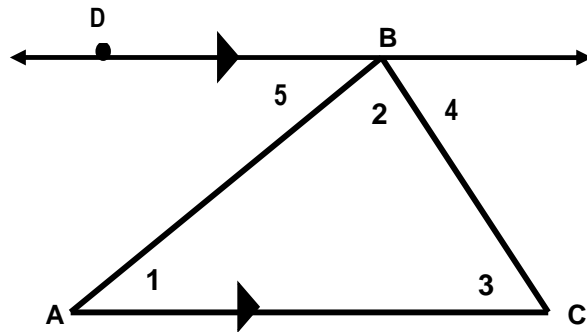
Statements	Reasons
7. $a \parallel b$	_____
8. $\angle 4 \cong \angle 2$	_____
9. $\angle 4 \cong \angle 8$	_____
10. $\angle 2 \cong \angle 8$	_____

- A. Given
- B. Vertical Angles Theorem

- C. Transitive Property of Congruence
- D. Corresponding Angles Postulate

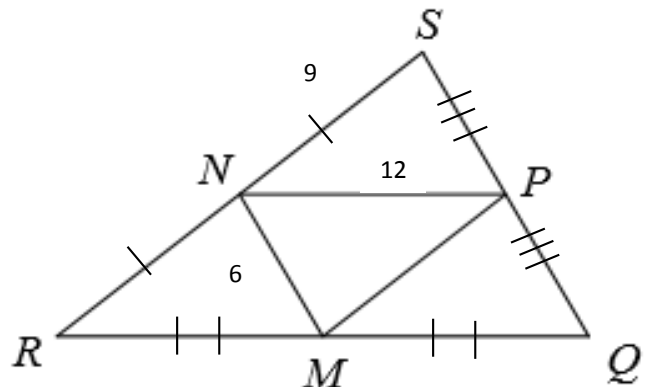
Use the figure at the right to find the missing angle measurements.

- 1) $m\angle 1 =$ _____
- 2) $m\angle 2 =$ _____
- 3) $m\angle 3 =$ _____
- 4) $m\angle 4 = 50^\circ$
- 5) $m\angle 5 = 40^\circ$

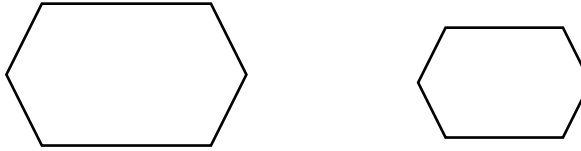


Use the diagram at the right for questions 8-10.

8. What is the length of RQ?
9. What is the length of MP?
10. What is the measurement of the perimeter of ΔSRQ ?



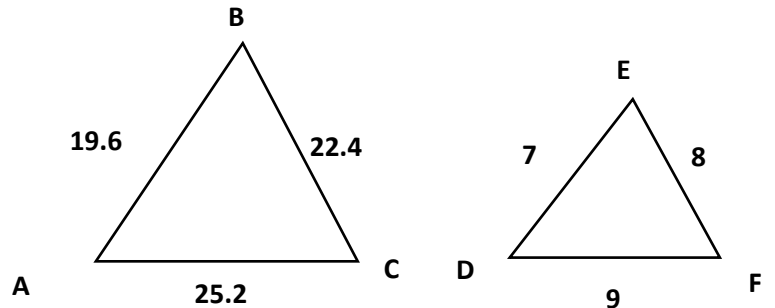
1. The two polygons below are similar. What must be true about these two polygons? (choose all that apply)



- A. equal areas
- B. equal heights
- C. corresponding sides are proportional
- D. corresponding sides are congruent
- E. corresponding angles are congruent

$\triangle ABC$ is similar to $\triangle DEF$. Use these triangles to answer questions 2-3. List all pairs of congruent angles and write a statement of proportionality between the corresponding sides.

2. List all pairs of congruent angles

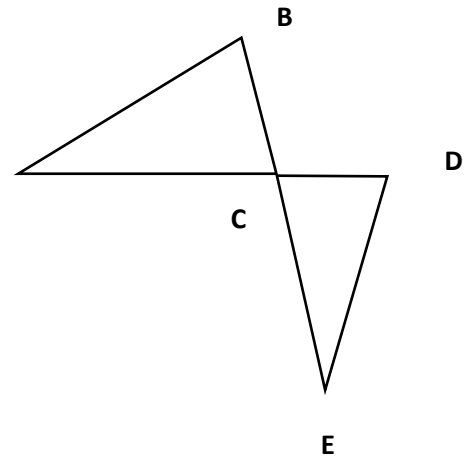


3. What is the scale factor from $\triangle ABC$ to $\triangle DEF$?

4. Which theorem(s) can we use to prove that two triangles are **similar**? Circle all that apply.
- a. Side Angle Side Similarity
 - b. Angle Angle Similarity
 - c. Side Side Similarity
 - d. Side Side Side Similarity

Given $\angle ECD = 40^\circ$, $\angle B = 75^\circ$ and $\angle D = 75^\circ$, use the picture below to answer questions 5-8.

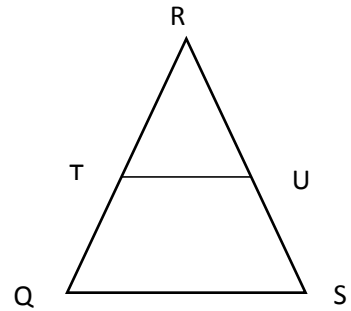
5. What is the measure of angle A? (SHOW YOUR WORK)
6. What is the measure of angle E? (SHOW YOUR WORK)
7. Are the two triangles similar?
8. Why or why not?



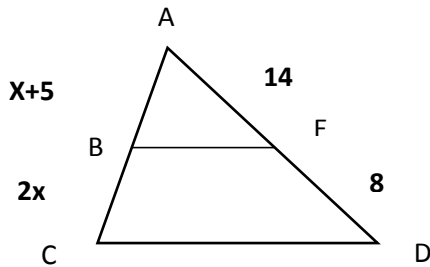
1. If a line divides two sides of a triangle proportionally, then it is _____ to the third side.
2. If two triangles are congruent, then their corresponding angles are _____.

3. In $\triangle QRS$, if $TU \parallel QS$, then $\frac{RT}{TQ} = \frac{?}{US}$.

4. In $\triangle QRS$, if $TU \parallel QS$, then $\frac{RT}{RU} = \frac{?}{US}$.



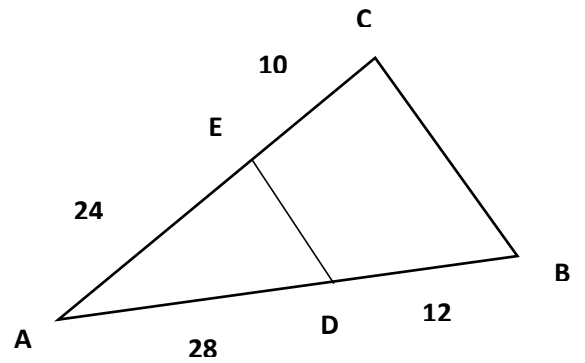
5. If $BE \parallel CD$, find the value of x .



Use the triangle at the right to answer questions 5 - 6.

7. Is BC parallel to DE ?

8. Explain your answer.



9. Given $\overline{AC} \parallel \overline{DE}$, find the value of y .

