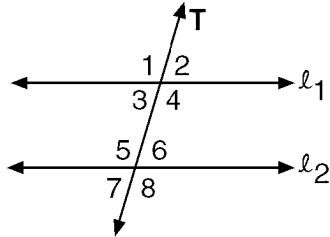


Name: _____

CC Geometry (H)

Parallel Lines Cut by Transversal Homework

Questions 1 through 3 refer to the following:

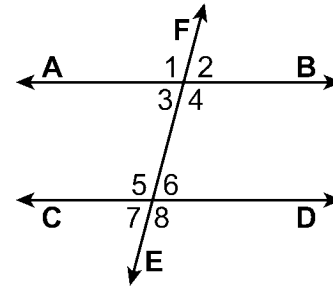


- 1) $\angle 1$ and $\angle 5$ can be classified as
 - A) alternate interior angles
 - B) corresponding angles
 - C) interior angles on the same side of the transversal
 - D) none of these

- 2) $\angle 3$ and $\angle 6$ can be classified as
 - A) alternate interior angles
 - B) corresponding angles
 - C) interior angles on the same side as the transversal
 - D) none of these

- 3) $\angle 3$ and $\angle 5$ can be classified as
 - A) alternate interior angles
 - B) corresponding angles
 - C) interior angles on same side of transversal
 - D) none of these

Questions 4 through 7 refer to the following:

In the diagram below, $\overline{AB} \parallel \overline{CD}$.

- 4) If $m\angle 2 = 70^\circ$, what is $m\angle 7$?

A) 20°	C) 180°
B) 70°	D) 110°

- 5) If $m\angle 3 = 60^\circ$, what is $m\angle 7$?

A) 90°	C) 60°
B) 120°	D) 30°

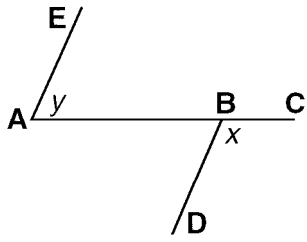
- 6) If $m\angle 4 = 120^\circ$, what is $m\angle 5$?

A) 90°	C) 30°
B) 120°	D) 60°

- 7) If $m\angle 5 = 120^\circ$, what is $m\angle 3$?

A) 60°	C) 30°
B) 180°	D) 120°

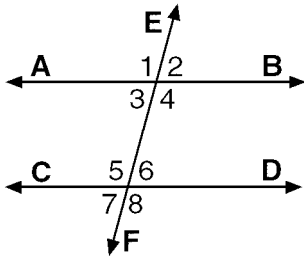
- 8) In the diagram below, $\overline{AE} \parallel \overline{BD}$.



If $y = 80^\circ$, find x .

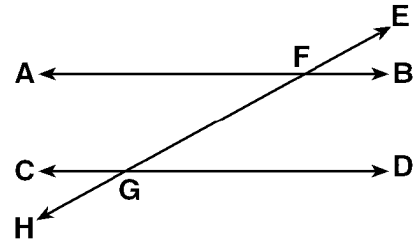
Questions 9 and 10 refer to the following:

In the figure below, $\overline{AB} \parallel \overline{CD}$.



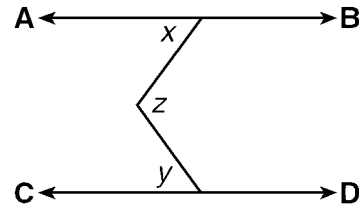
- 9) If $m\angle 4 = (2x + 10)^\circ$ and $m\angle 6 = (3x - 20)^\circ$, find the value of x .
- 10) If $m\angle 2 = (3x + 15)^\circ$ and $m\angle 6 = (5x - 5)^\circ$, find the $m\angle 2$.

- 11) In the accompanying diagram, \overline{AB} is parallel to \overline{CD} , and transversal \overline{EH} intersects \overline{AB} and \overline{CD} at F and G, respectively.



If $m\angle AFG = (2x + 10)^\circ$ and $m\angle FGD = (x + 20)^\circ$, find the value of x .

- 12) In the accompanying diagram, $\overline{AB} \parallel \overline{CD}$, $m\angle x = 50^\circ$, and $m\angle y = 60^\circ$.



What is $m\angle z$?

1) B 2) A 3) C 4) B 5) C

6) B 7) A

8) 100°

9) 38

10) 45°

11) 10

12) 110°