

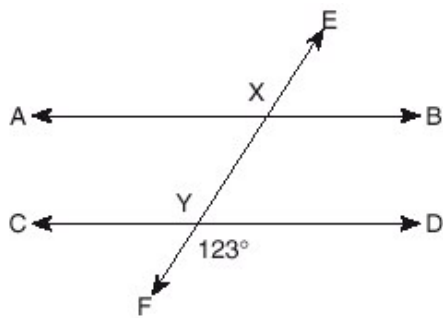
Name: _____

Class/Period: _____

Assignment: Parallel Lines Cut by a Transversal

Teacher: Zigrossi

- 1 In the accompanying diagram, parallel lines \overleftrightarrow{AB} and \overleftrightarrow{CD} are intersected by transversal \overleftrightarrow{EF} at points X and Y , and $m\angle FYD = 123$.



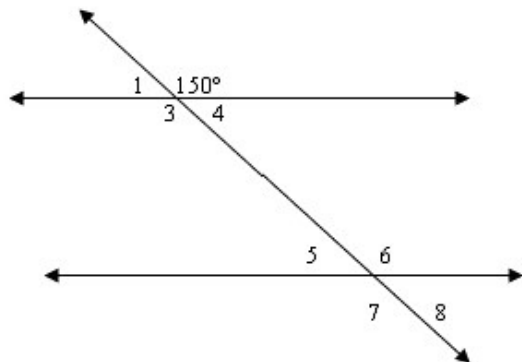
What is $m\angle A, X, Y$?

Answer:

2

Figure 1

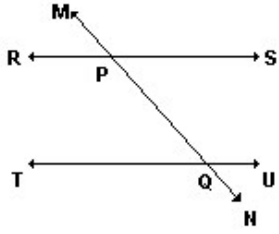
Two parallel lines are cut by a transversal, forming eight angles as shown in the diagram.



Refer to Figure 1 and answer the following Question:

The measure of $\angle 3 =$ $^\circ$.

- 3 In the diagram, transversal \overleftrightarrow{MN} intersects parallel lines \overleftrightarrow{RS} and \overleftrightarrow{TU} at P and Q , respectively.



If $m\angle RPM = 50$, find $m\angle PQU$.

- 1 40
- 2 50
- 3 130
- 4 140

- 4 Refer to Figure 1 and answer the following Question:

$\angle 1$ and \angle are alternate exterior angles.

The angle marked as 150° and \angle are alternate exterior angles.

- 5 Refer to Figure 1 and answer the following Question:

$\angle 1$ and \angle are corresponding angles.

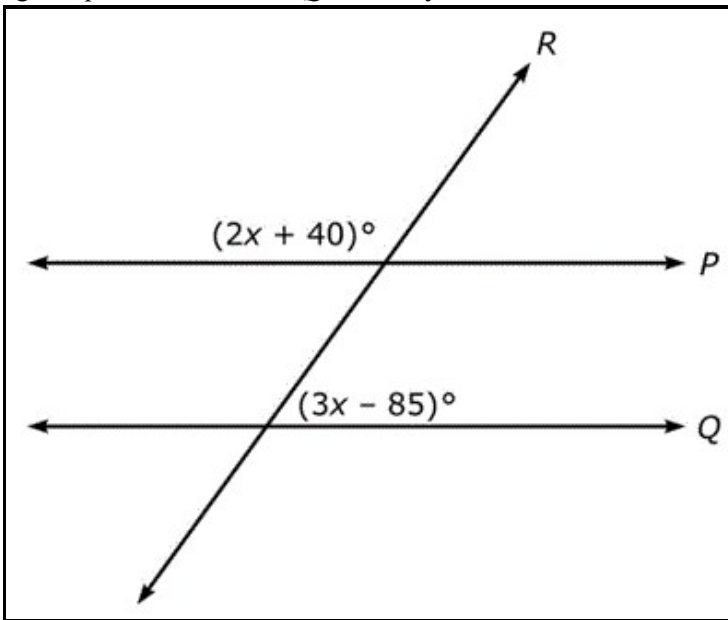
$\angle 4$ and \angle are corresponding angles.

- 6 Refer to Figure 1 and answer the following Question:

$\angle 3$ and \angle are alternate interior angles.

\angle and $\angle 5$ are alternate interior angles.

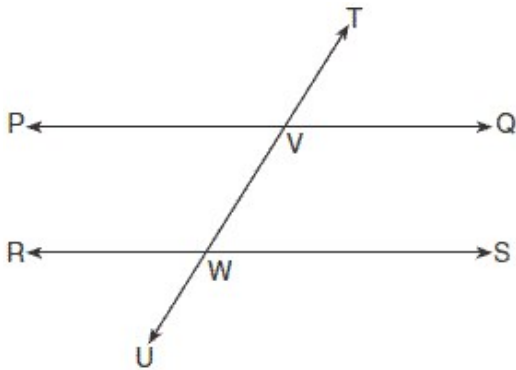
- 7 In the diagram, parallel lines P and Q are cut by transversal R .



What is the value of x ?

Answer: The value of x is .

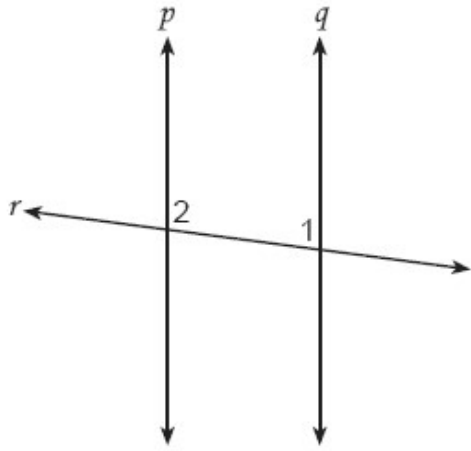
- 8 In the diagram below, transversal \overleftrightarrow{TU} intersects \overleftrightarrow{PQ} and \overleftrightarrow{RS} at V and W , respectively.



If $m\angle TVQ = 5x - 22$ and $m\angle VWS = 3x + 10$, for which value of x is $PQ \parallel RS$?

- 1 6
- 2 16
- 3 24
- 4 28

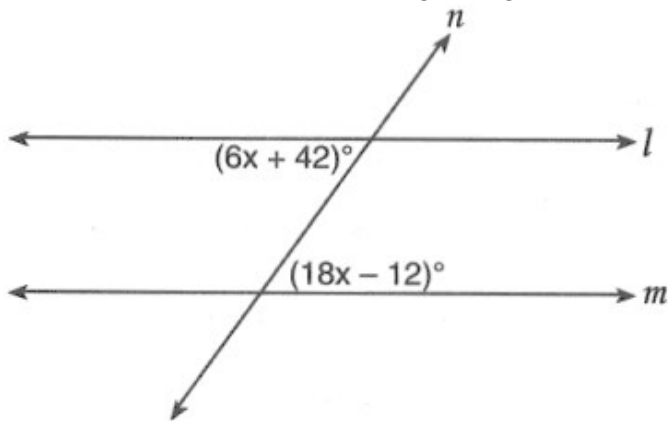
- 9 Lines p and q are intersected by line r , as shown below.



If $m\angle 1 = 7x - 36$ and $m\angle 2 = 5x + 12$, for which value of x would $p \parallel q$?

- 1 17
- 2 24
- 3 83
- 4 97

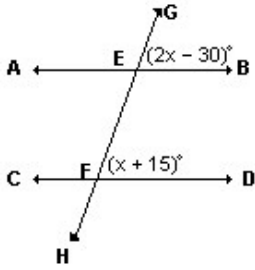
- 10 Line n intersects lines l and m , forming the angles shown in the diagram below.



Which value of x would prove $l \parallel m$?

- 1 2.5
- 2 4.5
- 3 6.25
- 4 8.75

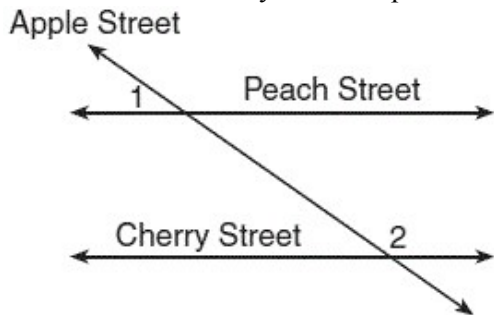
- 11 In the diagram, parallel lines \overleftrightarrow{AB} and \overleftrightarrow{CD} are cut by transversal \overleftrightarrow{GH} at E and F , respectively.



If $m\angle GEB = (2x - 30)$ and $m\angle EFD = (x + 15)$, find the value of x .

- 1 25
- 2 35
- 3 45
- 4 65

- 12 Peach Street and Cherry Street are parallel. Apple Street intersects them, as shown in the diagram below.



If $m\angle 1 = 2x + 36$ and $m\angle 2 = 7x - 9$, what is $m\angle 1$?

- 1 9
- 2 17
- 3 54
- 4 70