

Geometry HW #10

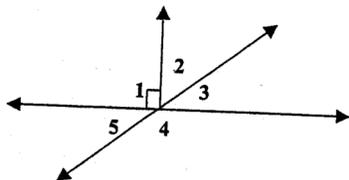
Name: _____

Date: _____

1. Draw all lines of symmetry for these shapes.



2. Which angles are complementary?

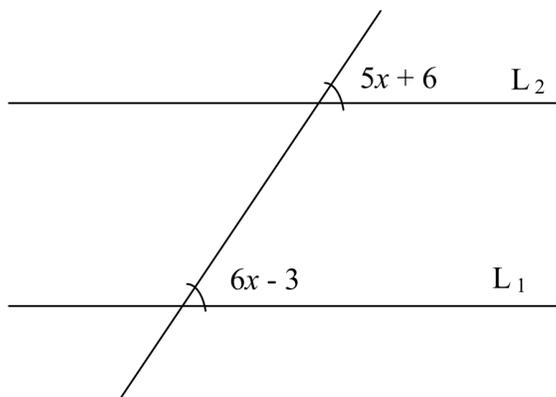


- A. $\angle 2$ and $\angle 3$ B. $\angle 3$ and $\angle 4$
 C. $\angle 4$ and $\angle 5$ D. $\angle 1$ and $\angle 2$

3. What is the supplement of a 40° angle?

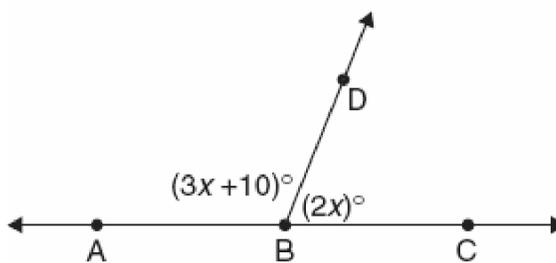
- A. 50° B. 130° C. 140° D. 220°

4. What is the value of x in the figure below if L_1 is parallel to L_2 ?



- A. $x = \frac{9}{11}$ B. $x = 165\frac{9}{11}$
 C. $x = 9$ D. $x = -9$

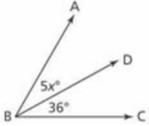
5. In the figure below, \overrightarrow{BD} intersects \overrightarrow{AC} at point B .



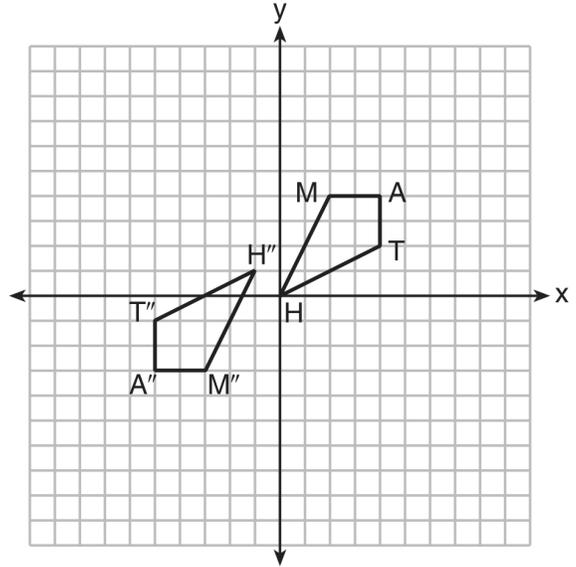
What is the measure of $\angle ABD$?

- A. 68° B. 112° C. 124° D. 170°

6. Angle ABD is congruent to angle CBD . What is the value of x ?

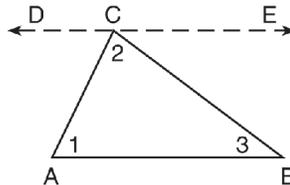


7. Quadrilateral $MATH$ and its image $M''A''T''H''$ are graphed on the set of axes below.



Describe a sequence of transformations that maps quadrilateral $MATH$ onto quadrilateral $M''A''T''H''$.

8. Given the theorem, "The sum of the measures of the interior angles of a triangle is 180° ," complete the proof for this theorem.



Given: $\triangle ABC$

Prove: $m\angle 1 + m\angle 2 + m\angle 3 = 180^\circ$

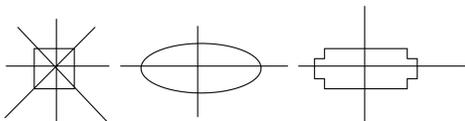
Fill in the missing reasons below

Statements	Reasons
(1) $\triangle ABC$	(1) Given
(2) Through point C , draw \overleftrightarrow{DCE} parallel to \overline{AB} .	(2)
(3) $m\angle 1 = m\angle ACD$, $m\angle 3 = m\angle BCE$	(3)
(4) $m\angle ACD + m\angle 2 + m\angle BCE = 180^\circ$	(4)
(5) $m\angle 1 + m\angle 2 + m\angle 3 = 180^\circ$	(5)

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1.

Answer:



2.

Answer:

A

3.

Answer:

C

4.

Answer:

C

5.

Answer:

B

6.

Answer:

[answers vary] ex: 7.2

7.

Answer:

Reflection over the origin and a translation of $(x - 1, y + 1)$

8.

Answer:

All four reasons are correct.