Name:_____Per:_____ Multiple Choice Final Review

1 **Which of the following best describes deductive reasoning?**

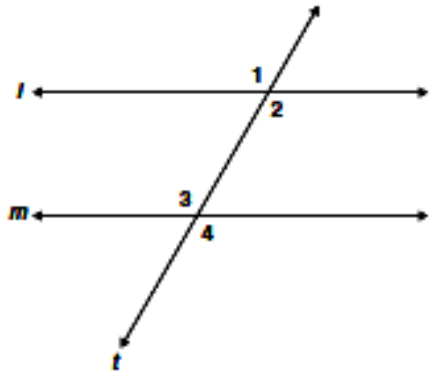
A using logic to draw conclusions based on accepted statements

B accepting the meaning of a term without definition

C defining mathematical terms to correspond with physical objects

D inferring a general truth by examining a number of specific examples

2 **In the diagram below, $\angle 1 \cong \angle 4$.**



Which of the following conclusions does *not* have to be true?

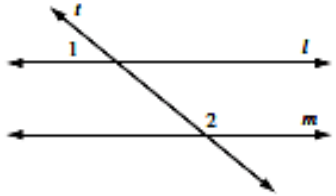
A $\angle 3$ and $\angle 4$ are supplementary angles.

B Line l is parallel to line m.

C $\angle 1 \cong \angle 3$

D $\angle 2 \cong \angle 3$

3 **In the accompanying diagram, parallel lines l and m are cut by transversal t.**



Which statement about angles 1 and 2 *must* be true?

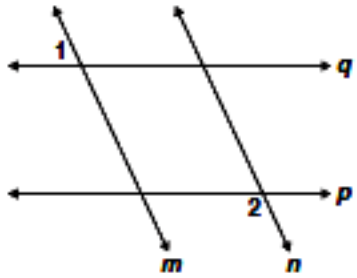
A $\angle 1 \cong \angle 2$.

B $\angle 1$ is the complement of $\angle 2$.

C $\angle 1$ is the supplement of $\angle 2$.

D $\angle 1$ and $\angle 2$ are right angles.

4 **Given:** $p \parallel q$;
$m \parallel n$;
$m\angle 1 = 75°$



What is $m\angle 2$?

A 15°

B 75°

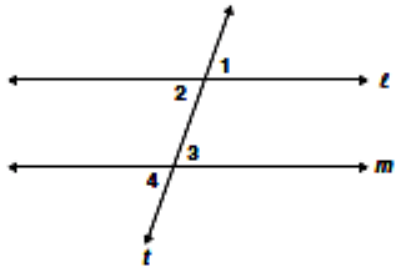
C 90°

D 105°

5 **Use the proof to answer the question below.**

Given: $\angle 2 \cong \angle 3$

Prove: $\angle 1 \cong \angle 4$



	Statement	**Reason**
1.	$\angle 2 \cong \angle 3$	1. Given
2.	$\angle 1 \cong \angle 2; \angle 3 \cong \angle 4$	2. ?
3.	$\angle 1 \cong \angle 4$	3. Transitive Property

What reason can be used to justify statement 2?

A Complements of congruent angles are congruent.

B Vertical angles are congruent.

C Supplements of congruent angles are congruent.

D Corresponding angles are congruent.

6 ***"Two lines in a plane always intersect in exactly one point."***

Which of the following best describes a *counterexample* to the assertion above?

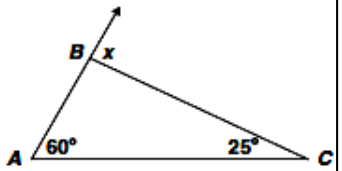
A coplanar lines

B parallel lines

C perpendicular lines

D intersecting lines

7 What is $m\angle x$?



A 35° C 85°
B 60° D 95°

8 If the measure of an exterior angle of a regular polygon is 120°, how many sides does the polygon have?

A 3 B 4 C 5 D 6

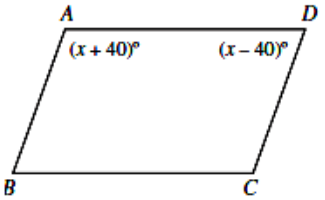
9 Two angles of a triangle have measures of 55° and 65°. Which of the following could *not* be a measure of an exterior angle of the triangle?

A 115°
B 120°
C 125°
D 130°

10 The sum of the interior angles of a polygon is the same as the sum of its exterior angles. What type of polygon is it?

A quadrilateral
B hexagon
C octagon
D decagon

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



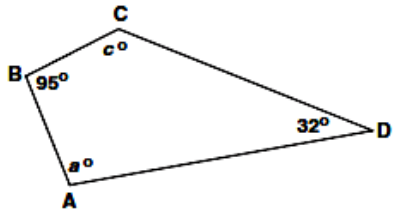
What is the value of x?

A 40
B 50
C 80
D 90

12 The measures of the interior angles of a pentagon are $2x$, $6x$, $4x-6$, $2x-16$, and $6x+2$. What is the measure, in degrees, of the largest angle?

A 28
B 106
C 170
D 174

13 For the quadrilateral shown below, what is $m\angle a + m\angle c$?

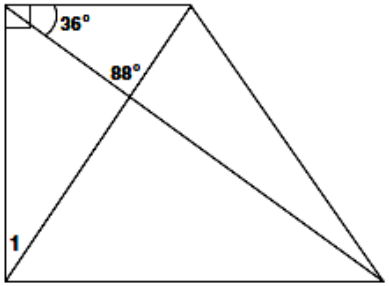


A 53°
B 137°
C 180°
D 233°

14 A regular polygon has 12 sides. What is the measure of each exterior angle?

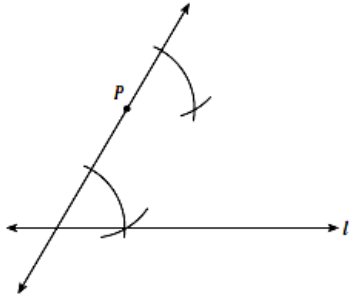
A 15°
B 30°
C 45°
D 60°

15 What is $m\angle 1$?



A 34°
B 56°
C 64°
D 92°

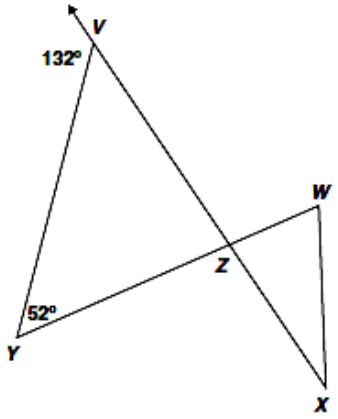
16 Marsha is using a straightedge and compass to do the construction shown below.



Which *best* describes the construction Marsha is doing?

A a line through P parallel to line l
B a line through P intersecting line l
C a line through P congruent to line l
D a line through P perpendicular to line l

17 What is $m\angle WZX$?



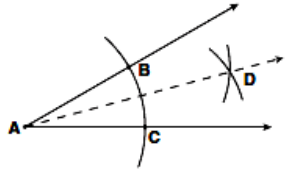
A 80°
B 90°
C 100°
D 110°

18 What is the measure of an exterior angle of a regular hexagon?

A 30°
B 60°
C 120°
D 180°

19 Given: angle A

What is the first step in constructing the angle bisector of angle A?



A Draw ray $\overline{AD}$.
B Draw a line segment connecting points B and C.
C From points B and C, draw equal arcs that intersect at D.
D From point A, draw an arc that intersects the sides of the angle at points B and C.