WINTON WOODS CITY SCHOOL DISTRICT

WINTON WOODS HIGH SCHOOL

Extended Learning

Course	Geometry
Teachers	Amstutz, Rowe, Williford
Standard(s)	G.CO.1 "Understand Congruence in terms of rigid motions" G.CO.9, G.CO.10 "Prove Geometric theorems" G.CO.12 "Make constructions" G.MG.3 "Apply geometric concepts in modeling situations" G.GPE.5 "Use coordinates to prove simple geometric theorems algebraically" G.SRT.5 "Prove theorems using similarity"
Assignment	SLO Practice Problems

Extended Learning #1 Geometry

Name: _____

Bell: _____ Date: _____

Show work: if you type it in the calculator write it down. If you need additional paper for work turn it in with your assignment.

Multiple choice questions

1. What is the slope of a line parallel to $-8x + y = 2$?

   (A) 8 (B) $\frac{8}{-1}$ (C) $\frac{-1}{8}$ (D) $\frac{1}{8}$

2. Given right $\triangle ABC$ with $m\angle B = (3x + 10)$ and $m\angle A = x$, if $\angle C$ is the right angle, what is the value of x?

   (F) 90 (G) 75 (H) 45 (I) 20

3. Segment $\overline{AB}$ contains midpoint P. Which does *not* properly name the line containing $\overline{AB}$?

   (A) $\overleftrightarrow{AB}$ (B) $\overleftrightarrow{PA}$ (C) $\overleftrightarrow{APB}$ (D) $\overleftrightarrow{BA}$

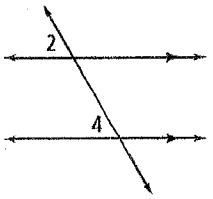
4. Given $m\angle 2 = 50$, which postulate or theorem proves $m\angle 4 = 50$?

   (F) Alternate Interior Angles Theorem

   (G) Corresponding Angles Theorem

   (H) Parallel Postulate

   (I) Same-Side Interior Angles Postulate



5. A segment has a midpoint $(-2, 9)$ and one endpoint $(2, 8)$. What is the coordinate of the other endpoint?

   (A) $(-6, 10)$ (B) $(-4, 10)$ (C) $(-2, 0.5)$ (D) $(0, 8.5)$

6. Find the radius of a circle with an area of 27π cm^2.

   (F) $3\sqrt{3}$ cm (G) $2\sqrt{7}$ cm (H) 13.5 cm (I) 27 cm

7. If Joe turns off his alarm, then he sleeps too late. If Joe sleeps too late, then he misses his bus. Joe catches the bus. What can you conclude?

   (A) Joe slept too late.

   (B) Joe's mom woke him up.

   (C) Joe did not turn off his alarm.

   (D) Joe set his alarm for the correct time.

8. What is the sum of the measures of the exterior angles of an equilateral triangle?

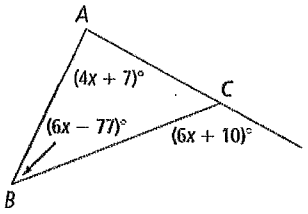
   (F) 90 (G) 180 (H) 360 (I) 900

9. $\angle A$ and $\angle B$ are supplementary congruent angles. What is $m\angle B$?

   (A) 45 (B) 60 (C) 90 (D) 180

Short Response

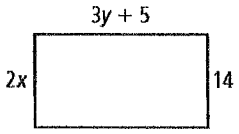
10. Find $m\angle B$ in the triangle at the right.



11. What is the measure of the complement of 27°?

12. Find the area of triangle DEF with the following coordinates: $D(3, 6)$, $E(-2, -1)$, and $F(-9, 4)$.

13. The rectangle at the right has a perimeter of 68. What are the values of x and y?



14. Write an equation of the line that connects the points $A(1, 3)$ and $B(4, -9)$.

15. What property does the following conditional statement illustrate?

If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$.

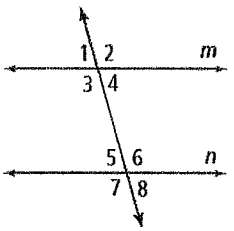
16. Write a statement that illustrates the Reflexive Property of Congruence.

Extended Response

17. **Given:** $m \parallel n$

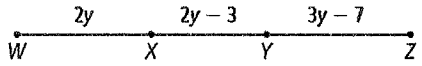
Prove: $m\angle 1 + m\angle 7 = 180$

Statements	Reasons



18. Draw a cube and use it to show an example of skew line segments.

19. If WZ = 46, what is the value of y?



20. Find the value of x, y, and z.

