# Geo Unit 5 Study Guide

## Answer Section

1. ANS:
   7
2. ANS:
   30
3. ANS:
   $\frac{180}{x}$
4. ANS:
   65
5. ANS:
   8 or 32
6. ANS:
   slope of $\overline{CD} = \frac{2}{3}$; slope of $\overline{DA} = -2$.
7. ANS:
   28
8. ANS:
   72
9. ANS:
   $8\sqrt{2}$
10. ANS:
    9
11. ANS:
    13
12. ANS:
    No; two pairs of congruent consecutive sides do not exit. $CD = \sqrt{72}$, $DA = \sqrt{65}$, $AB = \sqrt{20}$, $BC = \sqrt{17}$
13. ANS:
    Yes: $\overline{AB} \perp \overline{BC}$, $\overline{BC} \perp \overline{CD}$, $\overline{CD} \perp \overline{AD}$ so opp. $\angle$ are $\cong$, all $\angle$ are rt. $\angle$.
14. ANS:
    $ABCD$ has 2 pairs of opp. sides $\cong$, $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{DA}$, so $ABCD$ is a ▱ .
15. ANS:
    105
16. ANS:
    27

17. ANS:
$AB = \sqrt{41}$, $BC = \sqrt{85}$, $AC = 2\sqrt{26}$; scalene

Use the Distance Formula to find the lengths of the sides.
$d = \sqrt{\left(x_2 - x_1\right)^2 + \left(y_2 - y_1\right)^2}$
If $AB = BC$ or $BC = CA$ or $AB = CA$, then the triangle is isosceles.
If $AB = BC = CA$, then the triangle is equilateral.
If neither of the above, the triangle is scalene.

REF: Lesson 4-1
18. ANS:
$x = 7,\ y = 27$

REF: Lesson 4-6
19. ANS:
42, 48

REF: Lesson 1-5
20. ANS:
69

REF: Lesson 1-5
21. ANS:
pentagon

REF: Lesson 1-6
22. ANS:
quadrilateral

REF: Lesson 1-6
23. ANS:
nonagon

REF: Lesson 1-6
24. ANS:
hexagon, convex, irregular

REF: Lesson 1-6
25. ANS:
triangle, convex, irregular

REF: Lesson 1-6
26. ANS:
decagon, concave, irregular

REF: Lesson 1-6
27. ANS: B REF: Lesson 4-6

28. ANS:
$\{-4, 7\}$

REF: Lesson 5-5
29. ANS:
$\{-1.5, 0\}$

REF: Lesson 5-5
30. ANS:
$\{-2, 10\}$

REF: Lesson 5-6
31. ANS:
$(4x-9)(x-1)$

REF: Lesson 6-5
32. ANS:
$(7x-9)(x+2)$

REF: Lesson 6-5
33. ANS:
360
34. ANS:
90
35. ANS:
3.6
36. ANS:
117
37. ANS:
16
38. ANS:
false
39. ANS:
true
40. ANS:
false
41. ANS:
false
42. ANS:
true
43. ANS:
false
44. ANS:
true