**ACCELERATED GEO REVIEW ANSWERS**

1. A) 2PAIRS OF CONGRUENT SIDES

B) THE DIAGONAL IS THE HYPOTENUSE OF TWO TRIANGLES WHOSE SIDE LENGTHS ARE PYTHAGOREAN TRIPLES.

1. 36 un
2. (not enough info as shown) If 30-60-90 triangle, then $x=10\sqrt{3}$ , $y=30$
3. $s=\frac{15\sqrt{2}}{2} , t= \frac{15\sqrt{2}}{2}$
4. $\sqrt{x^{2}+5}$
5. Cos x = 40/41 sin x = 9/41
6. a. $40.8°$ b. $46.4°$
7. a. 16.2 un b. 6.6 un
8. 127 ft
9. The distance of 7.5 ft. found in Sieera’s equation is the horizontal distance from the truck to the foot of the ramp. Not the length of the ramp itself.
10. 518.3 m
11. q = 57.6 un , R = $22.3°$, P = $61.7°$
12. G = $151.38°$
13. X = 9 miles , y = 11 miles
14. a, b, d, e are false
15. x= 9.7 un
16. $1=55° 2=105° , 3=20° , 4=55° , 5=105° , 6=20°$
17. $24π un$
18. $no, 6^{2}+18^{2}\ne 23^{2}$
19. $586 un$
20. $\left(x+4\right)^{2}+ \left(y-4\right)^{2}=16$
21. $\left(x-7\right)^{2}+ \left(y-7\right)^{2}=25$
22. $100π un^{2}$
23. $r=6 un, AOC= \frac{2π}{3} or 120° , ABC= \frac{π}{3} or 60°, Sector Area=12π un^{2}$
24. $28 sq units$
25. $area of circle=12π un^{2} , area of shaded region=12π-9\sqrt{3} un^{2}$
26. a. 4:1 b. 16:1 c. 64:1
27. $266.39 m^{2}$
28. $24 sq ft$
29. 11,781 gallons
30. $572 in^{3}$
31. $17 cm$
32. 7 in.
33. $rect prism=12 in^{3} , square pyramid= 8 in^{3}$ , so prism is larger
34. $94 cubes$
35. 6.2 cm
36. $330° , \frac{11π}{6}$
37. $315° , \frac{7π}{4}$
38. $\frac{11π}{6}$
39. $θ^{'}=315°, or \frac{7π}{4} , sinθ^{'}= -\frac{\sqrt{2}}{2} , cosθ^{'}= \frac{\sqrt{2}}{2} , tanθ^{'}= -1$
40. ( 0, 1) ( 0 , -1)
41. $\frac{\sqrt{2}}{2}$
42. $\frac{\sqrt{3}}{3}$
43. $\frac{-\sqrt{3}}{2}$
44. $\frac{\sqrt{2}}{2}$
45. $\frac{1}{2}$
46. Undefined
47. $VS=0 , Amp=1 , Per=360° or 2π , PS=0° or 0$
48. $VS=up 1 , Amp=2 , Per=360° or 2π , PS=0° or 0$
49. $VS=0 , Amp=1 , Per=90° or \frac{π}{2} , PS=0° or 0$
50. $VS=0 , Amp=1 , Per=360° or 2π , PS=left 90° or \frac{π}{2}$
51. $y=4sinθ+2, or y=4\cos(\left(θ-90°\right))+2, or y= -4\sin(\left(θ-180°\right))+2, or y= -4\cos(\left(θ-270°\right))+2$
52. $y=3\sin(\left(θ- \frac{π}{4}\right))+1, or y=3\cos(\left(θ-\frac{3π}{4}\right))+1, or y= -3\sin(\left(θ-\frac{5π}{4}\right))+1, or y= -3\cos(\left(θ-\frac{7π}{4}\right))+1$
53. $VS=down 1 , Amp=2 , Per=120° , PS=left 30°$
54. $mag=17\sqrt{2} , Dir=45°$
55. $mag=\sqrt{1490} or 38.6 , Dir=73.44°$
56. $<1, 12 >$
57. $< -13.24 , -7.04> $
58. $<61.907 , 38.684>$
59. $mag=18.36\frac{m}{s}, Dir=29.357°north of west, or 150.64° from due east$
60. $mag=425.47 mph , Dir=3.335° east of north, or 86.665° from due east$
61. $< -4 , 3> , mag=5 , dir=143.13° from horizontal$
62. $< -6 , 2>$
63. $< -1 , 0>$