Algebra 2-Mr.C.-Looseleaf. Use Ch. 11-3 for trig. identities. Name_____

Practice for Q3Exam1-Also use old quizzes & classwk Date_____ Period____

Find the missing side. Round your answers to the nearest tenth.

1) In ΔABC, $b = 20$, $m\angle A = 95°$, $c = 22$
Find a

2) In ΔABC, $c = 13$, $m\angle A = 109°$, $b = 14$
Find a

3) In ΔTRS, $s = 25$, $r = 16$, $m\angle T = 105°$
Find t

4) In ΔTRS, $r = 13$, $s = 16$, $m\angle T = 119°$
Find t

5) In ΔKHP, $m\angle K = 137°$, $h = 9$, $p = 6$
Find k

6) In ΔKHP, $p = 14$, $m\angle K = 118°$, $h = 24$
Find k

7) In ΔXYZ, $m\angle X = 115°$, $m\angle Z = 54°$, $z = 17$
Find x

8) In ΔKHP, $m\angle K = 61°$, $m\angle H = 105°$, $k = 29$
Find h

9) In ΔTRS, $m\angle T = 118°$, $m\angle S = 47°$, $r = 12$
Find t

10) In ΔEFD, $m\angle E = 103°$, $m\angle D = 37°$, $d = 29$
Find e

11) In ΔQRP, $m\angle Q = 114°$, $m\angle P = 25°$, $p = 18$
Find q

12) In ΔKHP, $m\angle K = 91°$, $m\angle P = 30°$, $h = 24$
Find k

Find the missing angle. Round your answers to the nearest degree.

13) In ΔYZX, $m\angle Y = 146°$, $x = 26$, $y = 32$
Find $m\angle X$

14) In ΔABC, $m\angle C = 82°$, $c = 19$, $b = 9$
Find $m\angle B$

15) In ΔPQR, $m\angle P = 143°$, $r = 17$, $p = 37$
Find $m\angle R$

16) In ΔCAB, $m\angle B = 39°$, $b = 29$, $a = 4$
Find $m\angle A$

17) In ΔPQR, $m\angle P = 77°$, $r = 17$, $p = 20$
Find $m\angle R$

18) In ΔFDE, $m\angle E = 113°$, $e = 21$, $d = 10$
Find $m\angle D$

Find the area of each triangle to the nearest tenth.

19) In ΔQRP, $r = 12$, $p = 16$, $m\angle Q = 27°$

20) In ΔHPK, $k = 13$, $p = 15$, $m\angle H = 48°$

21) In ΔQRP, $m\angle Q = 112°$, $r = 10.2$, $p = 15$

22) In ΔHPK, $k = 10$, $m\angle H = 121°$, $p = 7$

23) In ΔBCA, $a = 7$, $m\angle B = 109°$, $c = 6$

24) In ΔRST, $s = 12$, $m\angle R = 47°$, $t = 6$

25) In ΔKHP, $k = 5$, $p = 11$, $h = 8$

26) In ΔZXY, $z = 11$, $x = 11.8$, $y = 11$

27) In ΔYZX, $z = 16$, $x = 14$, $y = 14$

28) In ΔTRS, $r = 10$, $t = 14$, $s = 14.2$

29) In ΔSTR, $r = 8$, $t = 9$, $s = 7$

30) In ΔEFD, $d = 13$, $f = 14.6$, $e = 7$

Graph each function using degrees.

31) $y = 3\sin\theta$

32) $y = \sin\theta + 2$

33) $y = \sin\theta - 2$

34) $y = \sin 2\theta$

Using degrees, find the amplitude and period of each function.

35) $y = -1 + 9\sin(4\theta - 225)$

36) $y = \frac{1}{8} \cdot \sin(8\theta - 60) + 5$

37) $y = \frac{1}{7} \cdot \sin\left(\frac{\theta}{7} - 90\right) + 3$

38) $y = \frac{1}{6} \cdot \sin(5\theta + 150) - 4$

39) $y = 3 + \frac{1}{4} \cdot \sin(7\theta + 150)$

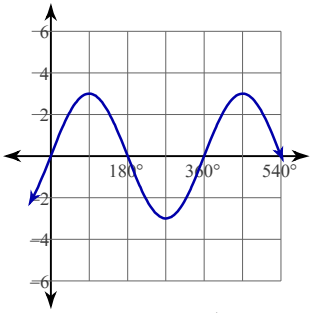
40) $y = \frac{1}{2} \cdot \sin(3\theta + 210) - 3$

41) $y = \frac{1}{10} \cdot \sin\left(\frac{\theta}{4} + 240\right) + 3$

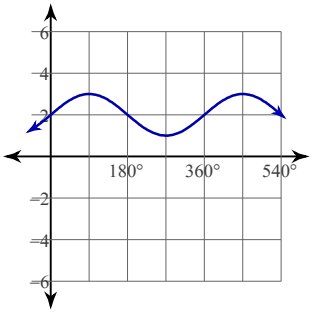
42) $y = 3\sin(\theta + 30)$

Answers to Practice for Q3Exam1-Also use old quizzes & classwk. (ID: 1)

1) 31
2) 22
3) 33
4) 25
5) 14
6) 33
7) 19
8) 32
9) 40.9
10) 47
11) 38.9
12) 28
13) 27°
14) 28°
15) 16.1°
16) 5°
17) 55.9°
18) 26°
19) 43.6 units²
20) 72.5 units²
21) 70.9 units²
22) 30 units²
23) 19.9 units²
24) 26.3 units²
25) 18.3 units²
26) 54.8 units²
27) 91.9 units²
28) 65.9 units²
29) 26.8 units²
30) 45.5 units²
31)



32)



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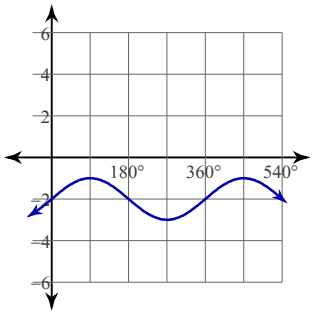

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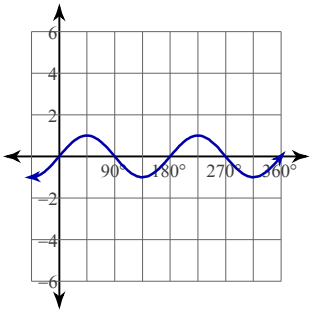

35) Amplitude: 9
Period: 90°

36) Amplitude: $\frac{1}{8}$
Period: 45°

37) Amplitude: $\frac{1}{7}$
Period: 2520°

38) Amplitude: $\frac{1}{6}$
Period: 72°

39) Amplitude: $\frac{1}{4}$
Period: $\frac{360}{7}$°

40) Amplitude: $\frac{1}{2}$
Period: 120°

41) Amplitude: $\frac{1}{10}$
Period: 1440°

42) Amplitude: 3
Period: 360°