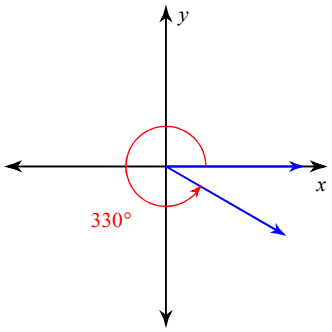
Geometry 1 - Mr. C. - All work on looseleaf. Name_____

Week 8 Practice for Q2Exam2

Date_____ Period____

Find the reference angle for the given angle. Remember "back to the x" and remember the reference angle is always positive. Think of it as your trig. table angle.

1)



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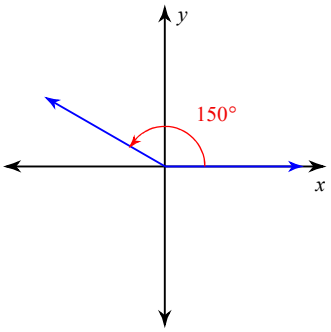

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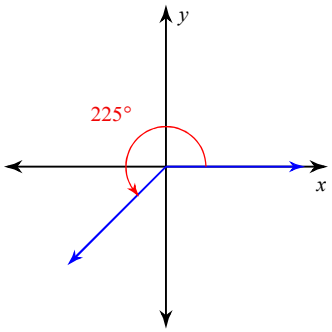

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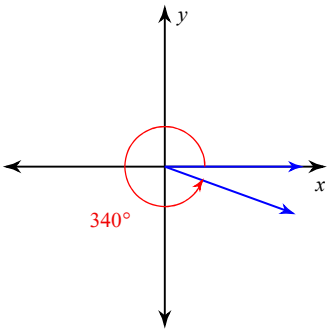
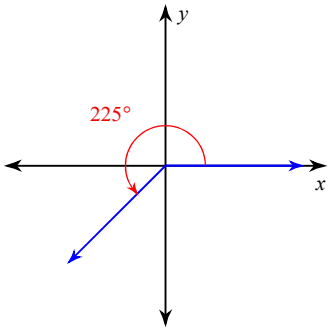
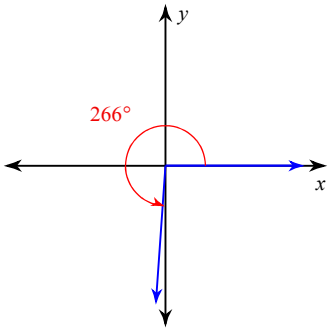


Find the sin, cos or tan of the given angle. First find the reference angle. Then use "ASTC" to give it the correct SIGN. You should use your trig. table and only the features of an add/subtract calculator. Round your answers to the nearest ten-thousandth.

5) sin θ



6) cos θ



7) sin −50°

8) tan −320°

Find the EXACT value of each trig. ratio. Don't forget ASTC. An EXACT trig. ratio will involve a special triangle angle or a quadrantal angle.

9) tan −150°

10) cos 150°

11) cos 315°

12) cos 135°

13) sin −135°

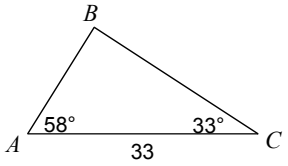
14) sin 330°

15) sin 180°

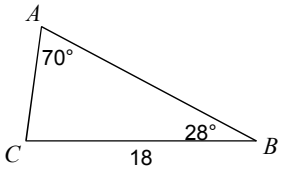
16) tan −330°

Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. AAS or ASA Triangles.

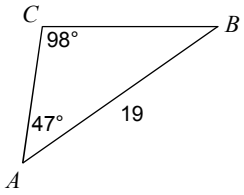
17) Find BC



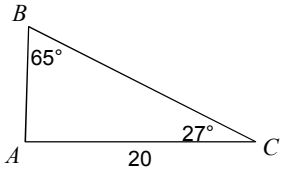
18) Find AC



19) Find BC

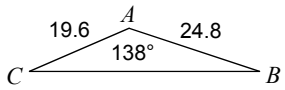


20) Find AB

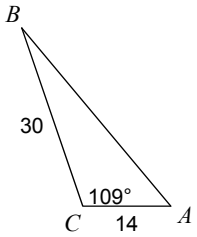


Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. SAS Triangles.

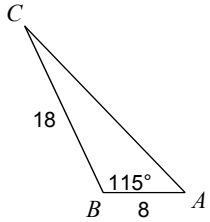
21) Find BC



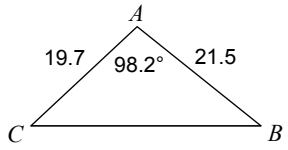
22) Find AB



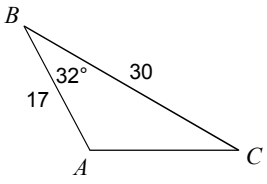
23) Find AC



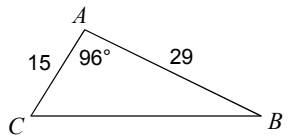
24) Find BC



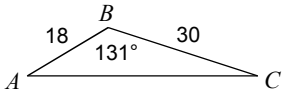
25) Find $m\angle C$



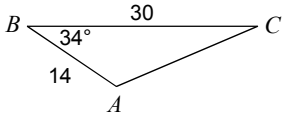
26) Find $m\angle B$



27) Find $m\angle C$

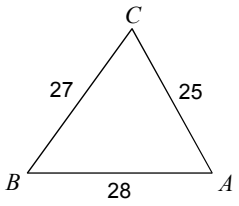


28) Find $m\angle C$

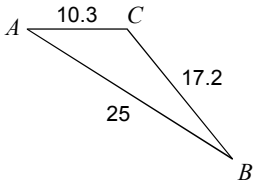


Find each measurement indicated. Sides- nearest tenth, angles-nearest deg. SSS Triangles.

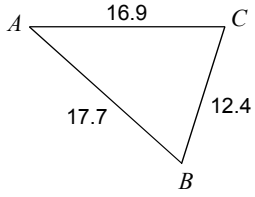
29) Find $m\angle A$



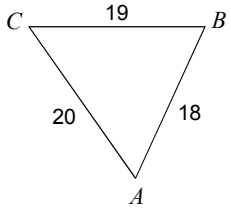
30) Find $m\angle A$



31) Find $m\angle B$



32) Find $m\angle C$



Solve each equation by factoring.

33) $n^2 = 12 + n$

34) $a^2 - 48 = -2a$

35) $k^2 = 11k - 30$

36) $x^2 + 32 = -12x$

37) $3x^2 = 23x + 8$

38) $3p^2 - 16p = -21$

39) $3m^2 - 8 = -5m$

40) $5n^2 - 18 = 27n$

Find the discriminant of each quadratic equation then state the number and type of solutions. NOTE: 2 imaginary means "NO REAL SOLUTION"

41) $-3k^2 + 6k - 1 = 2$

42) $3v^2 - v - 9 = -5$

43) $-6m^2 + 8m = 4$

44) $4p^2 - 8p + 6 = 2$

45) $7b^2 + 9b + 4 = 2$

46) $2x^2 + 8x + 17 = 9$

47) $n^2 + 2n + 4 = 3$

48) $4n^2 + 4n - 8 = -9$

49) $2x^2 + x + 8 = 3$

50) $-6r^2 - 7r - 3 = -8$

51) $-7x^2 + 5x - 14 = -8$

52) $-4n^2 - 4n + 6 = 6$

Answers to Week 8 Practice for Q2Exam2 (ID: 1)

1) 30°
2) 30°
3) 45°
4) 20°
5) -0.7071
6) -0.0698
7) -0.7660
8) 0.8391
9) $\frac{\sqrt{3}}{3}$
10) $-\frac{\sqrt{3}}{2}$
11) $\frac{\sqrt{2}}{2}$
12) $-\frac{\sqrt{2}}{2}$
13) $-\frac{\sqrt{2}}{2}$
14) $-\frac{1}{2}$
15) 0
16) $\frac{\sqrt{3}}{3}$
17) 28
18) 9
19) 14
20) 10
21) 41.5
22) 37
23) 22.6
24) 31.2
25) 30°
26) 26°
27) 18°
28) 23°
29) 61°
30) 32.3°
31) 65.6°
32) 54.9°
33) $\{4, -3\}$
34) $\{-8, 6\}$
35) $\{5, 6\}$
36) $\{-8, -4\}$
37) $\left\{-\frac{1}{3}, 8\right\}$
38) $\left\{\frac{7}{3}, 3\right\}$
39) $\left\{-\frac{8}{3}, 1\right\}$
40) $\left\{-\frac{3}{5}, 6\right\}$
41) 0; one real solution
42) 49; two real solutions
43) −32; two imaginary solutions
44) 0; one real solution
45) 25; two real solutions
46) 0; one real solution
47) 0; one real solution
48) 0; one real solution
49) −39; two imaginary solutions
50) 169; two real solutions
51) −143; two imaginary solutions
52) 16; two real solutions