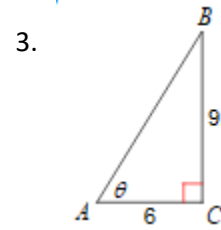
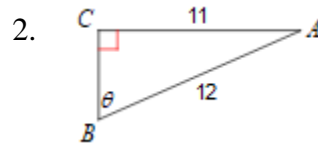
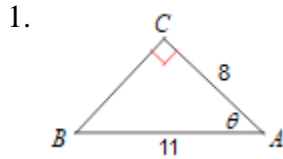


Secondary Math III
MID-UNIT REVIEW

Name _____

Period _____

Use the right triangle to find the exact values (trig ratios) of the three main trigonometric functions of the indicated reference angle. You will need to find the missing sides using the Pythagorean Theorem.

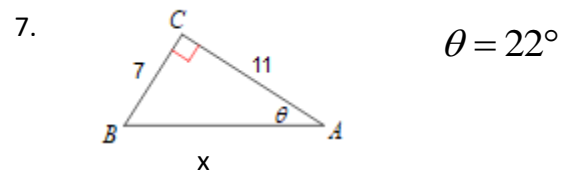
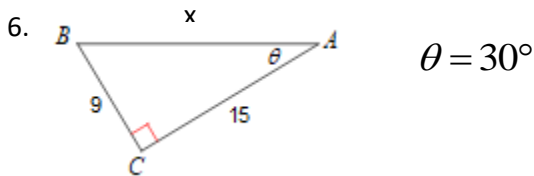


Determine the other two trigonometric ratios, given one of the ratios. Draw the triangle and label the sides. Write as exact answers.

4. If $\sin \theta = \frac{2}{7}$, find $\cos \theta$ and $\tan \theta$.

5. If $\cos \theta = \frac{3}{8}$, find $\sin \theta$ and $\tan \theta$.

Find the length of the missing side (x) using an equation involving a trig ratio. Round answers to the nearest tenth.



Draw the following angles in standard position:

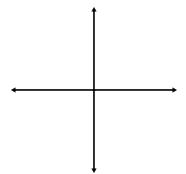
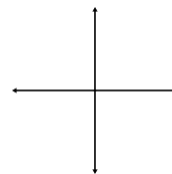
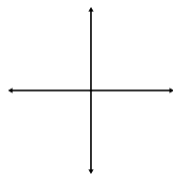
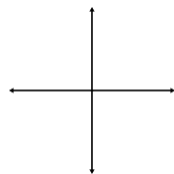
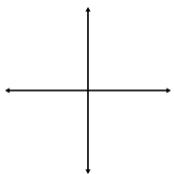
8. 225°

9. -120°

10. 585°

11. $\frac{7\pi}{4}$

12. $\frac{5\pi}{6}$



Find one positive and one negative angle that is coterminal with the given angle.

13. 321°

14. -225°

15. 155°

16. $\frac{7\pi}{4}$

17. $-\frac{5\pi}{2}$

18. $\frac{4\pi}{3}$

Find the measure of the reference angle for the given angles. Write the Quadrant original angle is found in.

19. 210°

20. 320°

21. -320°

22. $\frac{7\pi}{6}$

23. $\frac{8\pi}{3}$

24. $-\frac{3\pi}{4}$

Find \sin , \cos , and \tan if the terminal side of θ goes through the given point.

25. $(-2, 7)$

26. $(3, 8)$

27. Find $\cos \theta$ if $\sin \theta = \frac{1}{2}$ and θ is in Quadrant II.

28. Find $\tan \theta$ if $\sin \theta = -\frac{\sqrt{3}}{2}$ and θ is in Quadrant III.

Draw your SPECIAL TRIANGLES here
or use HAND TRICK

Evaluate the following without using a calculator. (HINT: use quadrant and reference angle)

29. $\sin 210^\circ$

30. $\tan 330^\circ$

31. $\cos -300^\circ$

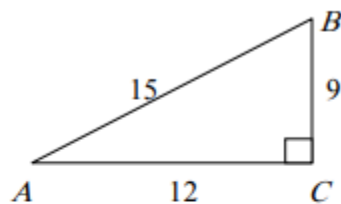
32. $\sin \frac{4\pi}{3}$

33. $\cos \frac{5\pi}{6}$

34. $\tan \frac{5\pi}{4}$

Practice ACT:

35. What is the value of $\cos B$ in the sketch below?



F. $\frac{2}{5}$

G. $\frac{3}{5}$

H. $\frac{4}{5}$

J. $\frac{5}{3}$

K. $\frac{5}{4}$

36. If $\sin \alpha = \frac{12}{13}$, and $\cos \alpha = \frac{5}{13}$, then $\tan \alpha = ?$

F. $\frac{5}{12}$

G. $\frac{12}{5}$

H. $\frac{60}{13}$

J. $\frac{7}{13}$

K. $\frac{17}{13}$