

Q2 HW4 - All work on looseleaf.

Date _____ Period _____

Simplify using the exponent rules.

1) $m^3 n^4 \cdot 4m^3 n^3$

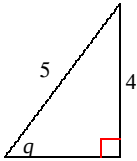
2) $\frac{4xy^3}{x^3 y^2}$

3) $\frac{(2x^3 y^{-4})^{-2}}{-2x^{-3} y^{-3} \cdot x^{-3} y^4}$

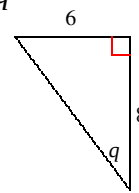
4) $-\frac{xy^{-3} \cdot 2x^{-2} y^4}{(-2x^2 y^4)^{-3}}$

Find the exact value of the trig function indicated.

5) $\tan q$



6) $\tan q$

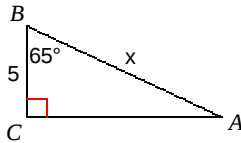


7) Find $\sin q$ if $\tan q = \frac{4}{3}$

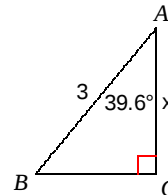
8) Find $\tan q$ if $\sin q = \frac{15}{17}$

Find the measure of each side indicated. Round to the nearest tenth. Calculator OK.

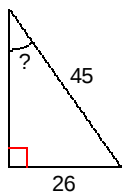
9)



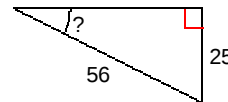
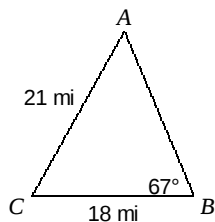
10)

**Find the measure of the indicated angle to the nearest degree. Calculator OK.**

11)

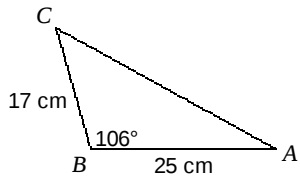


12)

**Find each measurement indicated. Round to the nearest tenth. Hint: use the Law of Sines. Calculator OK.**13) Find $m\angle A$ 

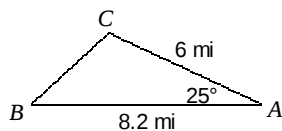
Solve each triangle. Round to the nearest tenth. Hint: use the Law of Cosines. Calculator OK.

14)



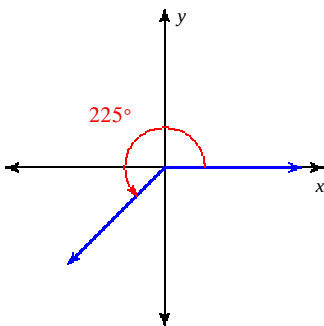
Find the area of each triangle to the nearest tenth. Calculator OK.

15)

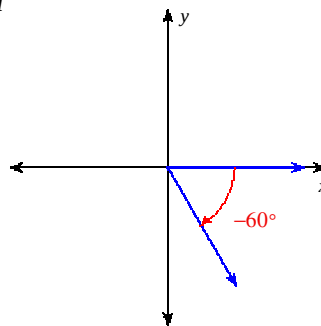


Find the exact value of each trigonometric function.

16) $\sin q$



17) $\sin q$



Use the information provided to write the standard form equation of each circle.

18) Center: $(0, 0)$
Radius: 14

19) Center: $(-11, -10)$
Radius: 2

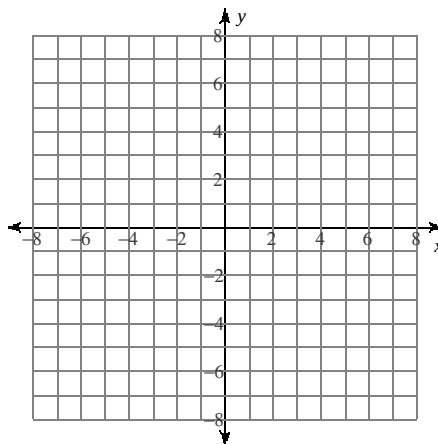
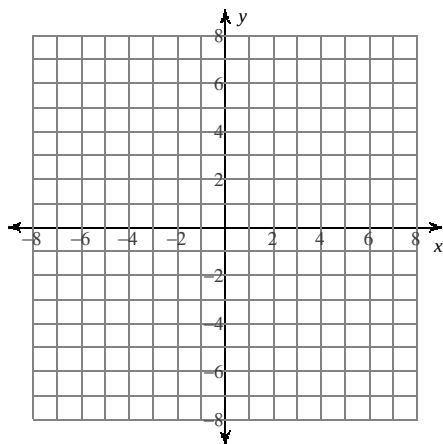
20) Center: $(-15, 4)$
Radius: 4

21) Center: $(8, 16)$
Radius: 1

Identify the center and radius of each. Then sketch the graph.

22) $x^2 + (y + 3)^2 = 9$

23) $x^2 + (y + 1)^2 = 16$



24) Find the distance between the two points and the coordinates of the midpoint of the line segment between the two points: $(5, 1)$, $(5, 11)$.

25) Find the distance between the two points and the coordinates of the midpoint of the line segment between the two points: $(-2, 2)$, $(0, 4)$.