

Bring your completed packet to the first class day.

Evaluate the following function.

1) $k(n) = n^2 + 4$; Find $k(-1)$

Simplify.

2) $\sqrt{40b^3}$

3) $\sqrt[3]{1000k^6}$

4) $7\sqrt[3]{256xy^6}$

5) $2\sqrt{27} - 3\sqrt{5} - 3\sqrt{45}$

6) $5\sqrt{3}(5 + \sqrt{6})$

7) $\frac{\sqrt{2}}{3\sqrt{5}}$

Simplify the following complex numbers.

8) $4(4 + i) + 8(-5i)$

9) $(-6 + 6i)(-3 + i)$

Write each expression in exponential form.

10) $(\sqrt{k})^3$

Write each expression in radical form.

11) $(6v)^{\frac{2}{3}}$

Simplify. Your answer should contain only positive exponents.

12) $2x^2 \cdot (x^3y^3)^{-3}$

13) $(2xy^2 \cdot y^{-4})^4$

14) $\frac{2v^{-4}}{4uv^2 \cdot 4v}$

15) $4m^4n^{-1} \cdot 2m^4n^3$

Name each polynomial by degree and number of terms.

16) $-10m^2 - 3m$

17) $-7n^3 + 2n^2 - 3$

Simplify each expression.

18) $(8m + 5m^2 + 7) - (6m^2 - 5m^4 - 4)$

Find each product.

19) $(2x - 1)(2x^2 + x - 6)$

20) $(2b - 3)(b - 6)$

21) $(3x + 4)^2$

Factor each completely.

22) $5x^2 + 20x - 160$

23) $2x^2 - 25x + 50$

24) $4n^2 - 6n$

25) $9x^2 + x - 10$

26) $r^2 - 3r - 18$

27) $n^2 - 25$

28) $32k^3 + 56k^2 - 28k - 49$

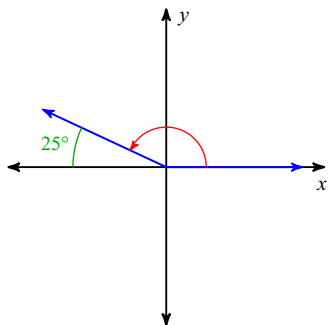
Solve each equation using logs. Round your answers to the nearest ten-thousandth.

29) $-3 \cdot 10^{-p} = -19$

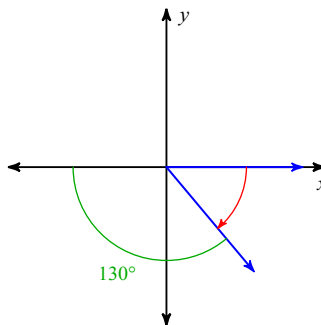
30) $4^{x+2} - 10 = 65.8$

Find the measure of each angle.

31)



32)



Convert each degree measure into radians and each radian measure into degrees.

33) $-\frac{\pi}{3}$

34) -195°

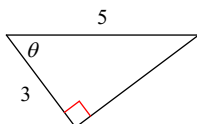
Find a positive and a negative coterminal angle for each given angle.

35) -266°

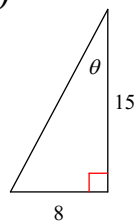
36) -255°

Find the value of the trig function indicated.

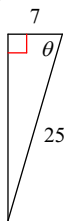
37) $\sin \theta$



38) $\tan \theta$

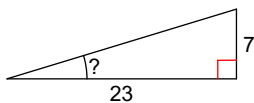


39) $\sec \theta$

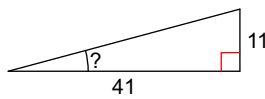


Find the measure of the indicated angle to the nearest degree using trig ratios.

40)

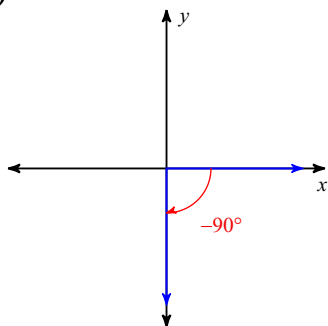


41)

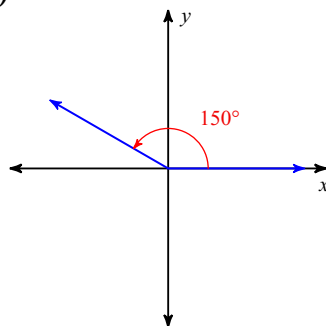


Find the exact value of each trigonometric function.

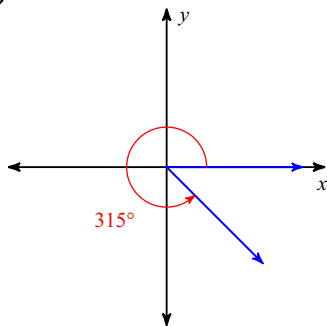
42) $\tan \theta$



43) $\cos \theta$



44) $\sin \theta$



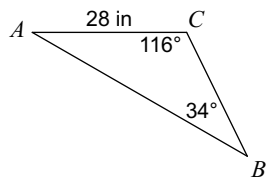
Solve each equation for $0 \leq \theta < 360$.

45) $\sin \theta = -\frac{1}{2}$

46) $\cos \theta = \frac{\sqrt{2}}{2}$

Use Law of Sines to find each measurement indicated.
Round your answers to the nearest tenth.

47) Find AB



48) Find $m\angle A$

