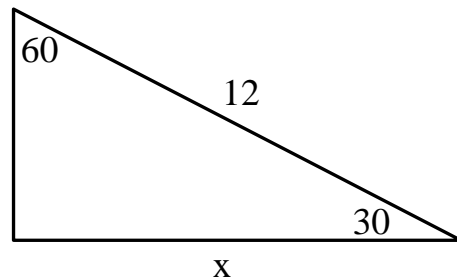
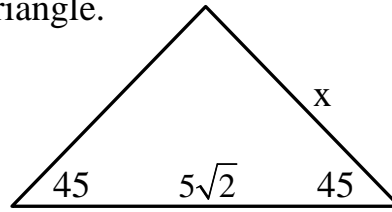


Pre-Calculus Homework #2

- 1) Find the distance between the points (6, -1) and (-4, -7). If these two points are on a line, find the equation of that line.
- 2) Simplify: $\sqrt[3]{1372x^9y^5a^7m^2}$
- 3) Simplify: $\frac{-5x + 2x^5 - 4x^2}{x + 2}$
- 4) Simplify: $3a\sqrt{192x^5y^3} - 5y\sqrt{98x^3y^4a} + 2xy\sqrt{27x^3ya^2} + 2x\sqrt{32xy^6a}$
- 5) Simplify: $(2x^2 - 3x - 6)(5x^2 - 2x + 4)$
- 6) Write $\sqrt[5]{x^4} \cdot \sqrt[4]{x^3}$ as a single radical.
- 7) Graph $18x - 27y = 81$ and find the x and y intercepts.
- 8) Simplify: $(2x\sqrt{112xy^4} + 2y\sqrt{576xy^6})(3x\sqrt{8x^2y} - \sqrt{2x^4y})$
- 9) Simplify: $\frac{x^4 + 6 - 4x^5}{x^2 - 3}$
- 10) Simplify: $(6x - 5)^3$
- 11) Simplify: $\frac{\sqrt{175}}{\sqrt{486}}$
- 12) Find the equation of the line that is perpendicular to the line $9x + 24y = 48$ and goes through the point (-8, -3).
- 13) Simplify: $\frac{8 - \sqrt{72}}{8 + \sqrt{12}}$
- 14) Write $\sqrt[6]{x^5} \cdot \sqrt[2]{x^8}$ as a single radical.
- 15) Simplify: $\frac{-13 + 4x^4}{x + 3}$
- 16) Simplify: $(3x^2 - 8x)(7x^2 + 9x - 2)$
- 17) Find x in the following triangle.



18) Find x in the following triangle.



19) Convert 240 degrees into radians

20) Convert $\frac{5\pi}{6}$ radians into degrees