## <u>Intermediate Algebra Brush-Up Session</u> - Radicals and Rational Exponents, Solving <u>Equations, Pythagorean theorem</u>

If you placed into MATH 098, this might be useful for you

1. Simplify:

a) 
$$\sqrt{4x^2}$$

b) 
$$\sqrt[3]{-8x^6}$$

c) 
$$\sqrt{16(x-4)^4}$$

d) 
$$27^{\frac{4}{3}}$$

e) 
$$8^{-\frac{1}{3}}$$

f) 
$$(m^{\frac{-21}{2}})^{\frac{8}{7}}$$

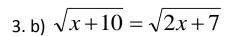
2. Write an equivalent expression using radical notation

a) 
$$\mathbf{X}^{\frac{1}{2}}$$

**b)** 
$$t^{\frac{2}{3}}$$

3. Solve:

a) 
$$\sqrt{4x+5}-4=2$$



- 4. Solve using the Pythagorean Theorem.
- a) Find the hypotenuse of a right triangle if one side equals 7 feet and the other side equals 5 feet.

b) How tall is a pole if a 40 foot guy wire reaches from the top of the pole to a point on the ground 19 feet from the bottom of the pole?

Need more help? Check out these Modumath Lessons: Intermediate Algebra: Lessons 23, 24, & 31 <a href="http://modumath.org/mm/GraysHarbor.html">http://modumath.org/mm/GraysHarbor.html</a>