

# Trig/Pre-Calc

## Ch 2

### Sec 2.1+2.2 Review

For 1-4, describe the graph using  $k$ ,  $a$ , and  $n+c$  (when applicable) Then sketch the graph. Also find  $D+R$

1.  $f(x) = \frac{2}{3}x^{3/2}$     2.  $f(x) = -2x^{-4}$     3.  $f(x) = 3x^4$     4.  $f(x) = -\frac{1}{2}x^3$

Use the five step process to write + solve an equation.

5. The amount of material needed to cover a ball varies directly with the square of the radius. If it takes  $172\text{ cm}^2$  to cover a ball of radius  $3.7\text{ cm}$ , what is the radius of a ball that needs  $366\text{ cm}^2$  of material to cover it?

6. The area of a square varies directly with the square of its diagonal. If a square with a diagonal of  $9\text{ in}$  has an area of  $40.5\text{ in}^2$ , what is the area of a square with diagonal  $14\text{ in}$ ?

7. When a teeter totter is balanced, each person's weight varies inversely with the distance from the center support. If a person who weighs  $90\text{ lbs}$  sits at one end of a  $12\text{ ft}$  seesaw/teeter totter, how far away must a  $120\text{ lb}$  person sit to balance?