

IV. Rate of change (pp.111-112):

1. The “average” rate of change of f between x_1 and x_2 is given by the expression

$$\frac{f(x_2) - f(x_1)}{x_2 - x_1} \left\{ \begin{array}{l} \textit{slope of line} \\ \text{see Fig 2.6 / p.111} \end{array} \right.$$

2. When substituting $x_2 = x_1 + h$, the average rate of change becomes known as the “**difference quotient.**” — see Fig 2.7 / p.112

V. Examples (p.115): Exercises #80,82

HW: pp.115-116 / Exercises #77-85(odd),89,93

I. 6 Special Graphs:

1. $y = x^2$

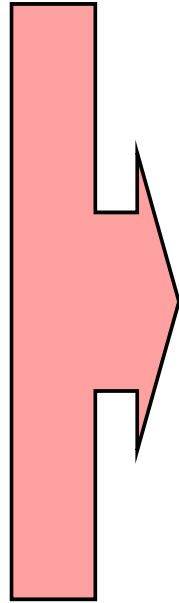
2. $y = \sqrt{x}$

3. $y^2 = x$

4. $y = x^3$

5. $y = \sqrt[3]{x}$

6. $y = |x|$



see examples 1-4 & 6 / pp.119-123

II. Graphing Equations –

1. Plot enough (x,y) points to define the curve
(be sure to show what happens as $x \rightarrow \pm\infty$)
2. Examples (p.126): Exercises #2,14,20,32

HW: pp.126-127 / Exercises #5,9,15,21,29,33