March 2 HW

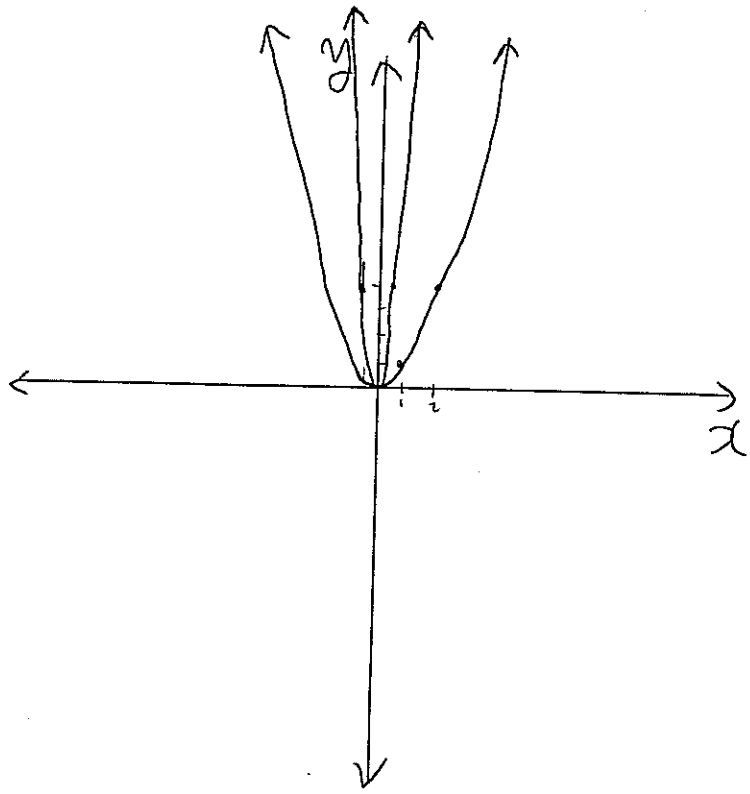
P120 #6 a) $g(x) = 3f(x)$ or vertical stretch by 3

b) $g(x) = 5\ f(x)$ or vertical stretch by 5

#7 a) $f(x) = x^2$

x	y
1	1
2	4
3	9

x	y
$\frac{1}{2}$	4
1	16
$\frac{3}{2}$	36



e) vertical stretch by 16.

#4 c) $g(x) = \sqrt{\frac{x}{3}}$ $\quad f(x) = \sqrt{x}$

$$g(x) = \frac{\sqrt{x}}{\sqrt{3}} = \frac{f(x)}{\sqrt{3}}$$

$$k = \frac{1}{\sqrt{3}}$$

$k = 0.577 \longrightarrow$ horizontal stretch by $\sqrt{3}$

b) $g(x) = (5x)^2$ $\quad f(x) = x^2$

$g(x) = f(5x)$ $\quad k = 5 \rightarrow$ horizontal compression by $\frac{1}{5}$

P120 #4e) $g(x) = \sqrt{16x}$ $\quad f(x) = \sqrt{x}$

$g(x) = \sqrt{16} \cdot \sqrt{x} = \sqrt{16} f(x) = 4 f(x)$

$k = 4 \rightarrow$ horizontal compression by $\frac{1}{16}$