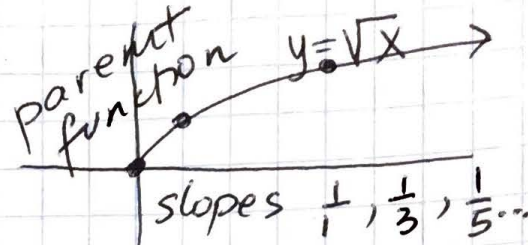
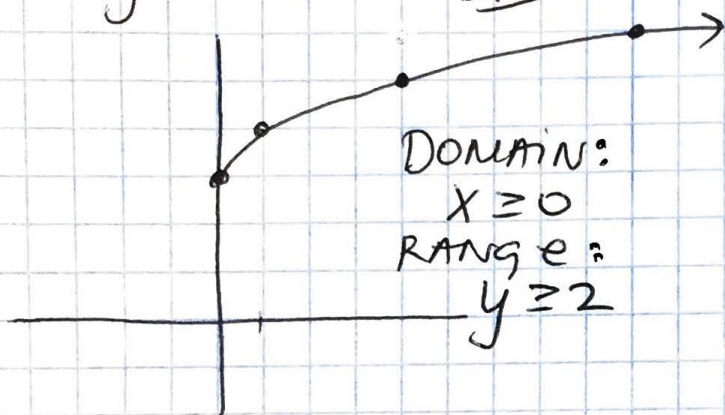


HOMWORK 6-8

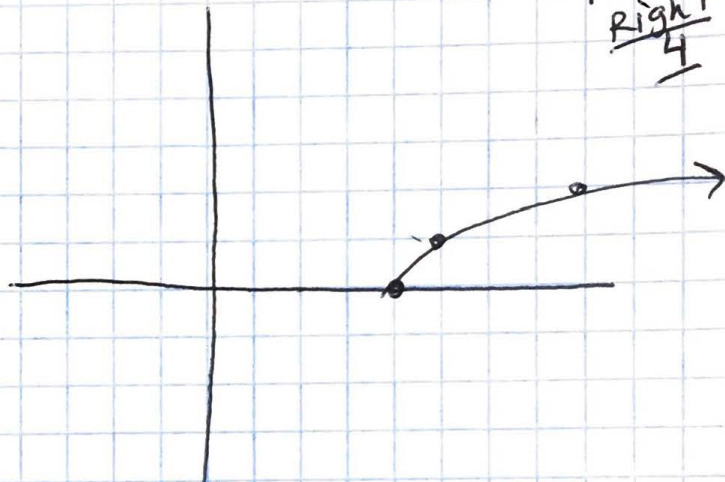


1) Graph each function

a) $y = \sqrt{x} + 3$ ← outside up 3 of the root

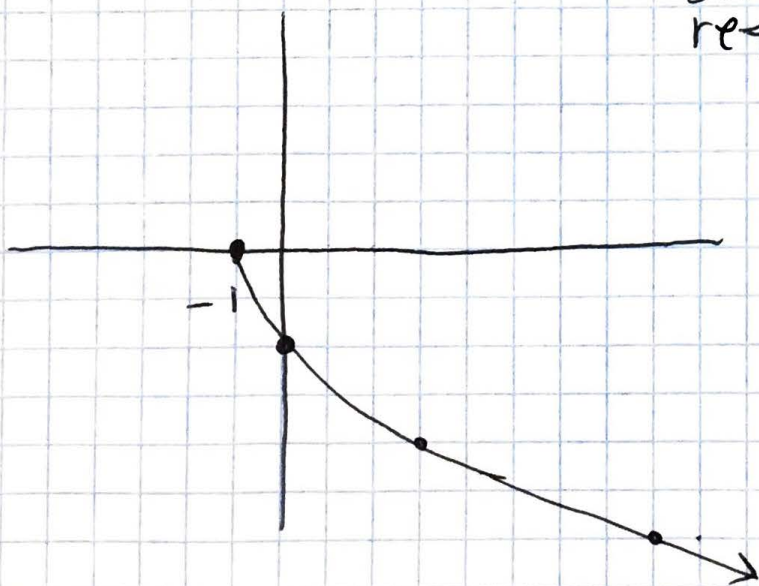


b) $y = \sqrt{x-4}$ inside of the root Right 4



c) $y = -2\sqrt{x+1}$

LEFT 1 stretch by 2 reflection



slopes change due to stretch + reflection

original	→	NEW
$\frac{1}{1}$	→	$-\frac{2}{1}$
$\frac{1}{3}$	→	$-\frac{2}{3}$
$\frac{1}{5}$	→	$-\frac{2}{5}$

$$2) \quad a) \quad \sqrt{x+2} = 7$$

$$x+2 = 49$$

$$x = 47$$

$$b) \quad \sqrt{4x+1} = 5$$

$$4x+1 = 25$$

$$4x = 24$$

$$x = 6$$

$$c) \quad \frac{1}{3} \sqrt{3-x} = \frac{10}{3}$$

$$\sqrt{3-x} = \left(\frac{10}{3}\right)^2$$

$$3-x = \frac{100}{9}$$

$$-x = \frac{100}{9} - \frac{27}{9}$$

$$-x = \frac{73}{9}$$

$$x = -\frac{73}{9}$$

$$3) \quad d = \sqrt{\frac{3h}{2}}$$

a) If $d=3$, what is h ? b) If $d=1.5$, what is h ?

$$3^2 = \sqrt{\frac{3h}{2}}$$

$$2 \cdot 9 = \frac{3h}{2}$$

$$18 = \frac{3h}{3}$$

$$h = 6$$

$$1.5^2 = \sqrt{\frac{3h}{2}}$$

$$2 \cdot 2.25 = \frac{3h}{2}$$

$$4.5 = \frac{3h}{3}$$

$$h = 1.5$$