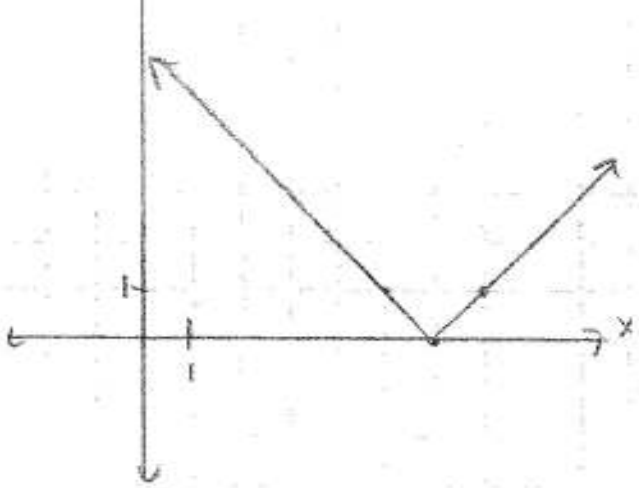
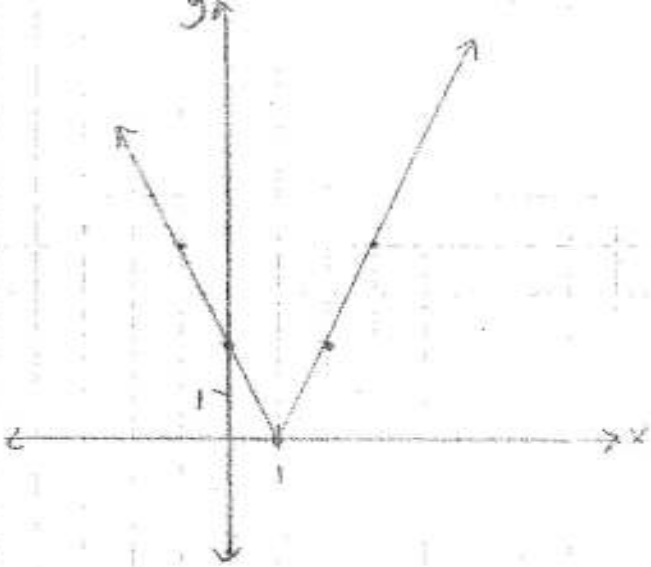
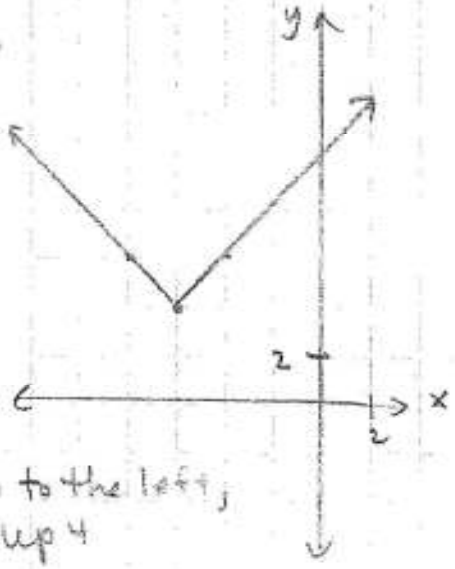




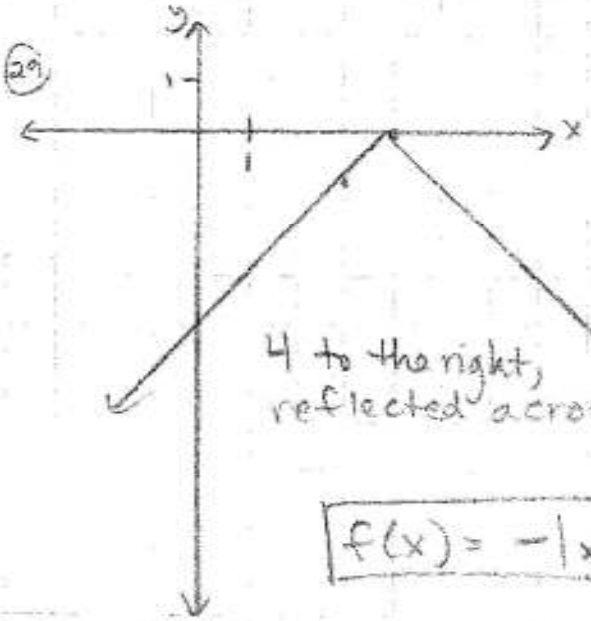
(28)



6 to the left, up 4

$$f(x) = |x+6| + 4$$

(29)

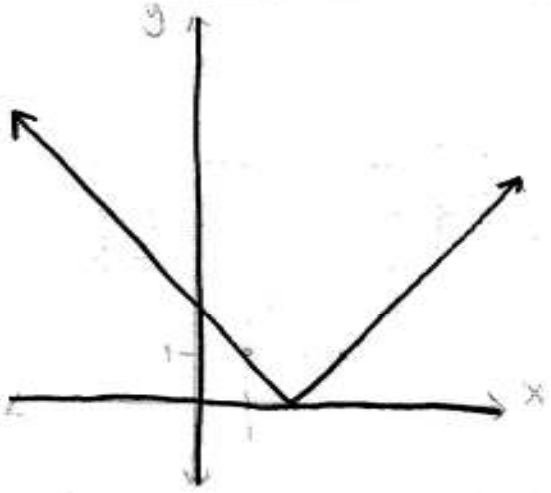


4 to the right, reflected across x-axis

$$f(x) = -|x-4|$$

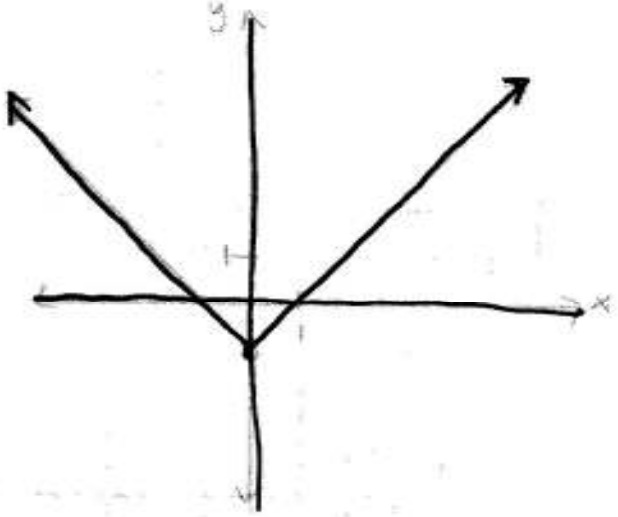
2 units right

$g(x) = |x-2|$



1 unit down

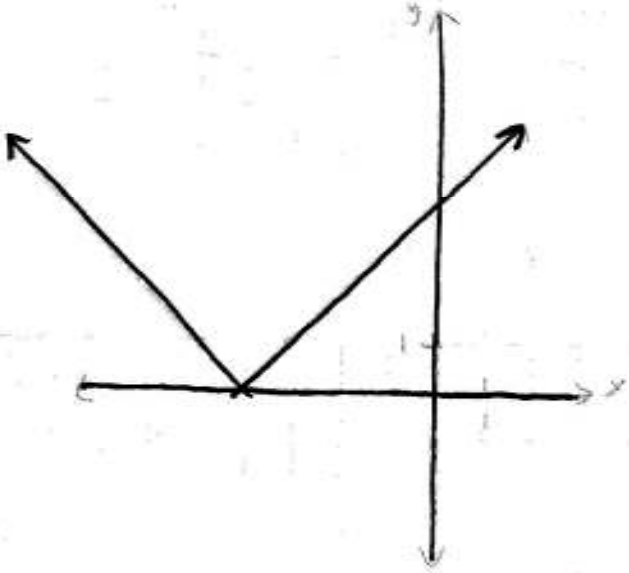
$f(x) = |x| - 1$



⑪ $f(x) = |x|$

4 units left

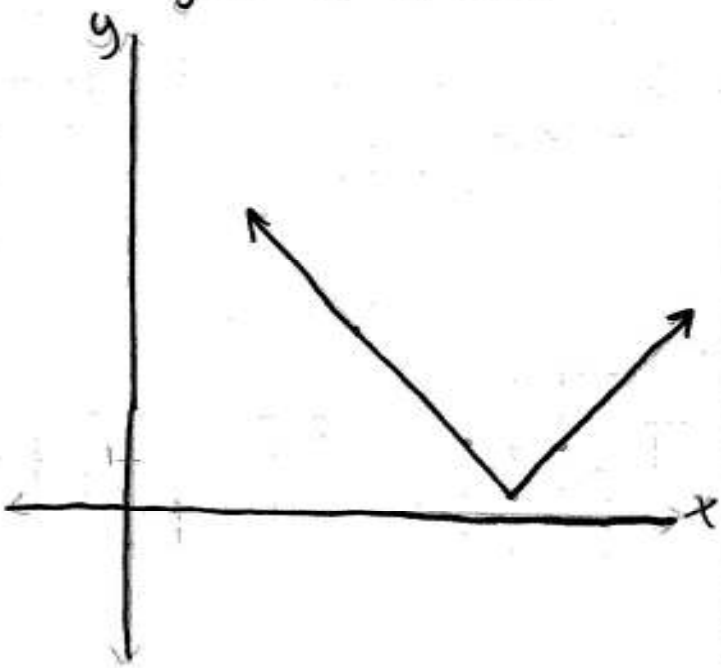
$g(x) = |x+4|$



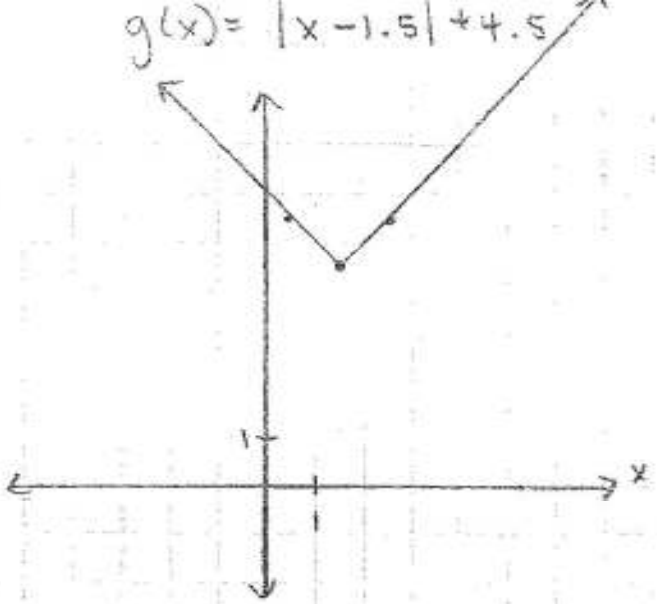
⑫ Vertex $(8, 0.5)$

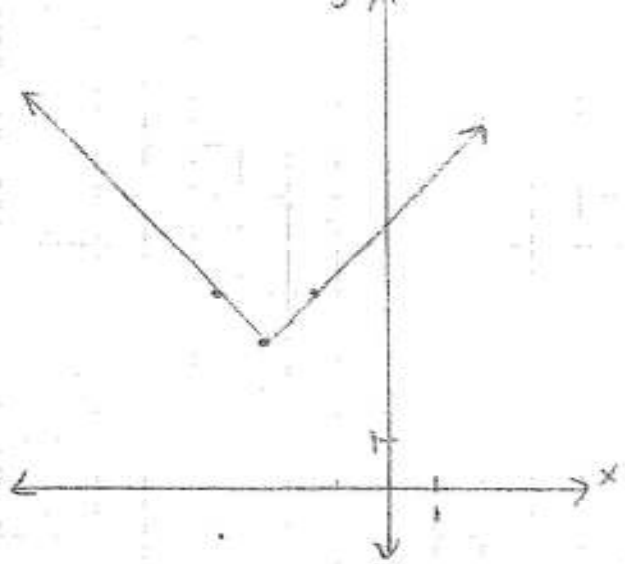
8 units right, 0.5 units up

$g(x) = |x-8| + 0.5$



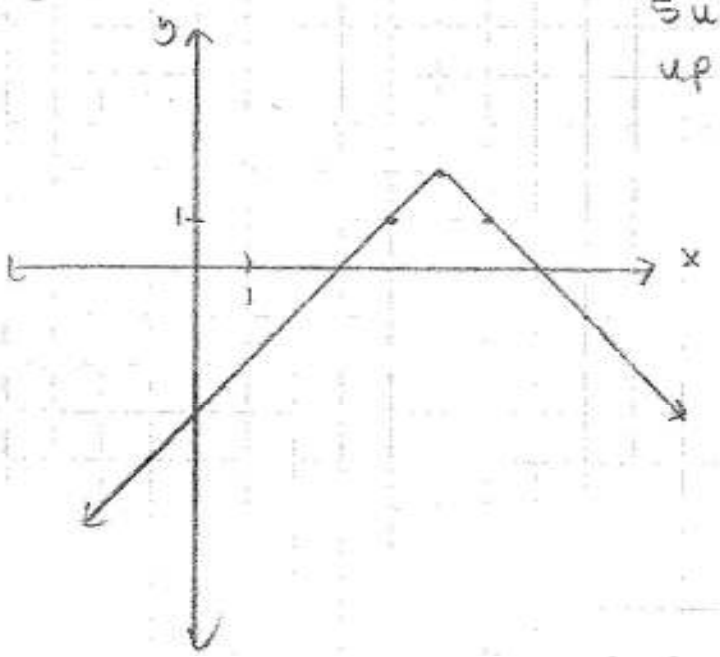
$g(x) = |x-1.5| + 4.5$





(15) $f(x) = |x-5| + 2$ across x-axis

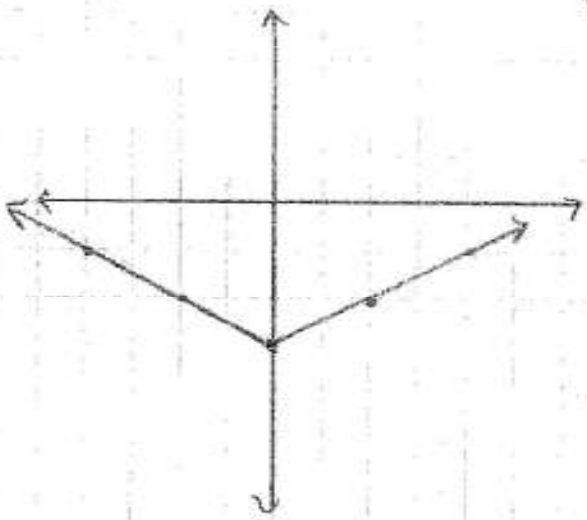
$g(x) = -|x-5| + 2$ ⟶ across x-axis
5 units right
up 2



$g(x) = \frac{1}{4} \cdot 2|x| - 3$

$g(x) = \frac{1}{2}|x| - 3$ ⟶ down 3

vertical compression factor $\frac{1}{2}$



⑰ $f(x) = |2x| - 3$ horizontal stretch factor $\frac{3}{2}$

$g(x) = \left|2\left(\frac{1}{\frac{3}{2}}x\right)\right| - 3$

$\boxed{g(x) = \left|2\left(\frac{2}{3}x\right)\right| - 3}$

$g(x) = \left|\frac{4}{3}x\right| - 3$

$g(x) = \frac{4}{3}|x| - 3$

down 3

vertical stretch $\frac{4}{3}$