

#11
$$f(x) = \begin{cases} 9x+2 & \text{if } x < 2 \\ 8x-1 & \text{if } x \geq 2 \end{cases}$$

a) $f(\underline{-5}) = 9(-5)+2 = -45+2 = -43$

b) $f(\underline{2}) = 8(2)-1 = 16-1 = 15$

c) $f(\underline{8}) = 8(8)-1 = 64-1 = 63$

#12
$$h(x) = \begin{cases} \frac{7x-1}{x+2} & \text{if } x \neq -2 \\ 4 & \text{if } x = -2 \end{cases}$$

a) $h(\underline{-5}) = \frac{7(-5)-1}{(-5)+2} = \frac{-35-1}{-3} = \frac{-36}{-3} = 12$

b) $h(\underline{-2}) = 4$

c) $h(\underline{4}) = \frac{7(4)-1}{(4)+2} = \frac{28-1}{6} = \frac{27}{6} = \frac{9}{2}$

#13

$$f(x) = \begin{cases} x-3 & \text{if } x < -2 \\ x+1 & \text{if } x \geq -2 \end{cases}$$

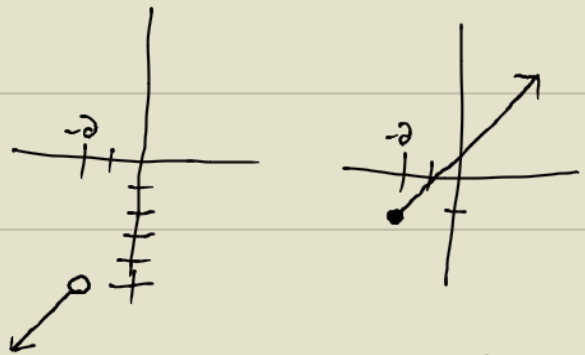
② APPLY CONDITIONS

① GRAPH EACH PIECE SEPARATELY

$y = x - 3$



$y = x + 1$



③ MERGE INTO ONE GRAPH

