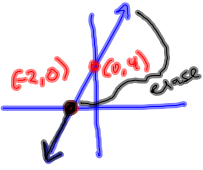




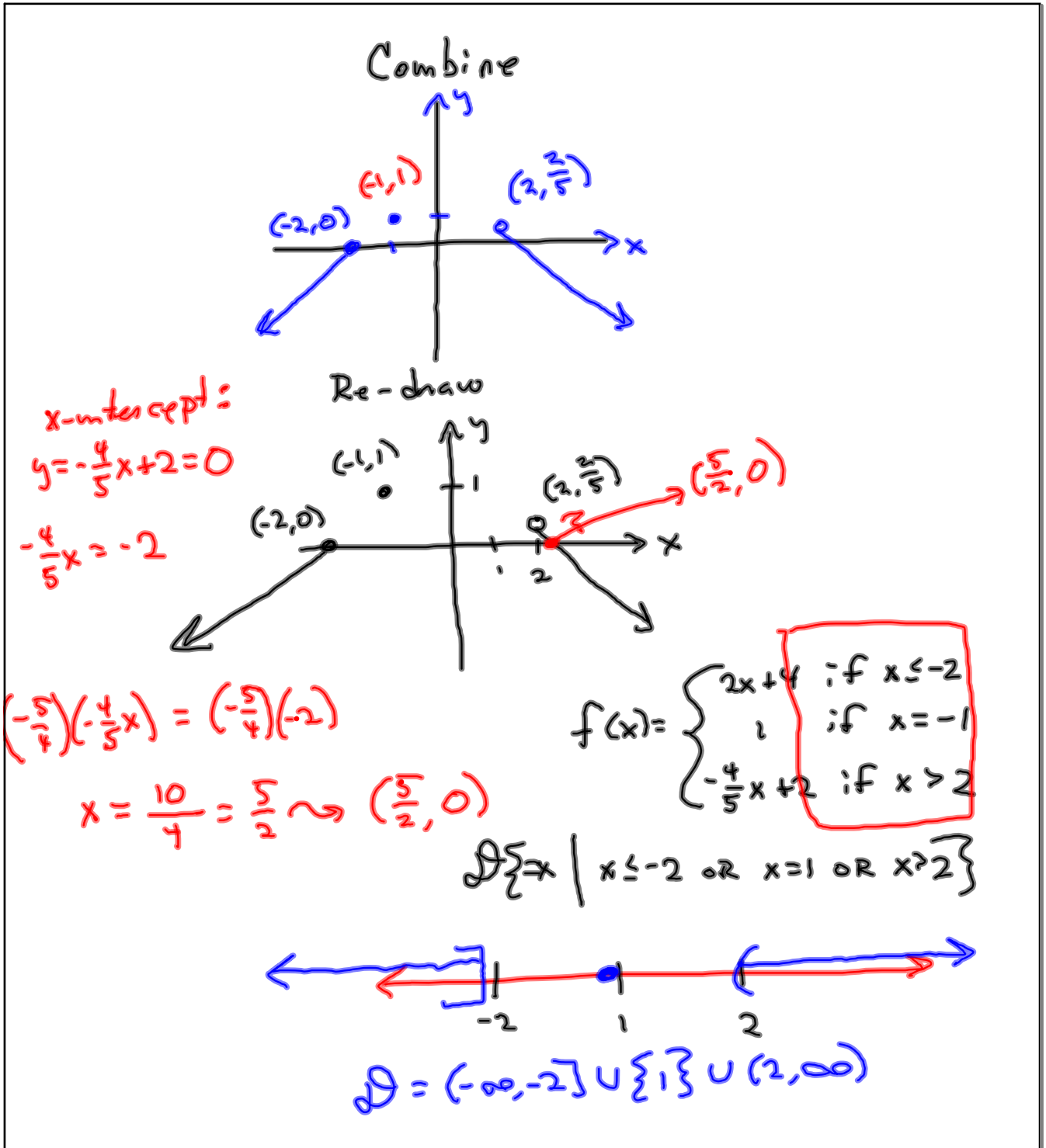
Graph $f(x) = \begin{cases} 2x+4 & \text{if } x \leq -2 \\ 1 & \text{if } x = -1 \\ -\frac{1}{5}x+2 & \text{if } x > 2 \end{cases}$

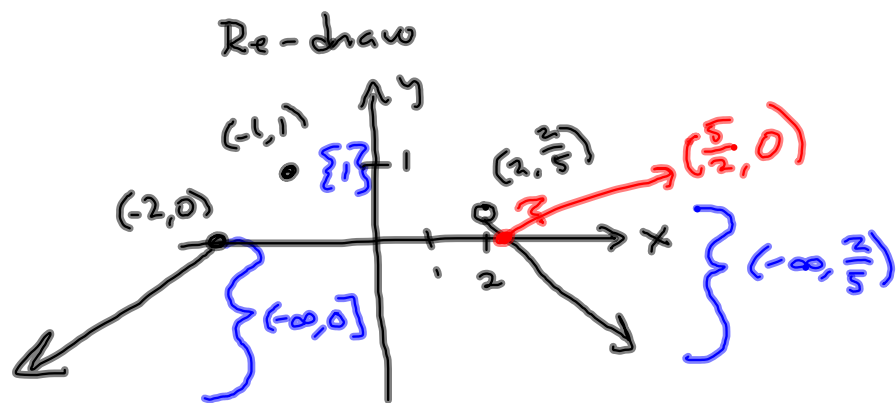
First Piece
 $y = 2x+4$ $x \leq -2$
 $m=2, (0, b) = (0, 4)$

 $\frac{4-0}{0-(-2)} = 2 = \frac{2}{1} = m$
 $x = -2$ closed dot
 $y = 2x+4$
 $y = 2(-2)+4$
 $= -4+4$
 $y = 0 \rightarrow (-2, 0)$

2nd Piece
 $y = 1$ $x = -1$
 $(-1, 1)$

 $(-1, 1)$

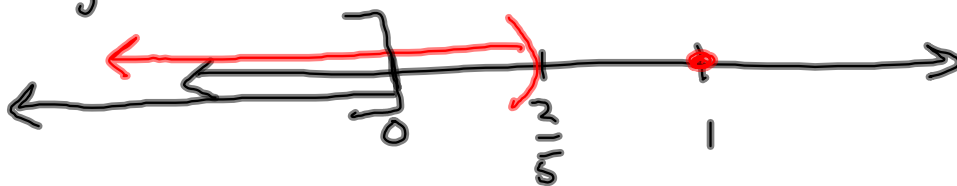
3rd Piece
 $y = -\frac{1}{5}x+2$ $x > 2$
 $m = -\frac{1}{5}, (0, 2)$ $x = 2$ open dot
 $y = -\frac{1}{5}x+2$
 $y = -\frac{1}{5}(2)+2$
 $y = \frac{2}{5} \rightarrow (2, \frac{2}{5})$


$-\frac{1}{5} + \frac{2}{1} = -\frac{4}{5} + \frac{10}{5}$
 $-\frac{4}{5} \cdot \frac{2}{1} + 2 \cdot \frac{5}{5}$
 $= -\frac{8}{5} + \frac{10}{5} = \frac{2}{5}$





Range $(-\infty, 0] \cup \{1\} \cup (-\infty, \frac{2}{5}) = (-\infty, \frac{2}{5}) \cup \{1\}$



Range is hard.