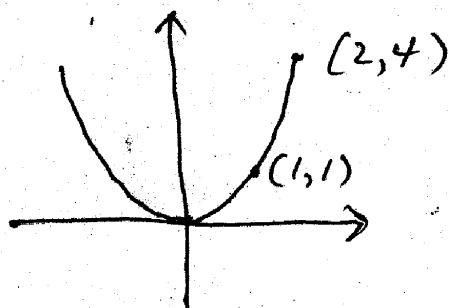


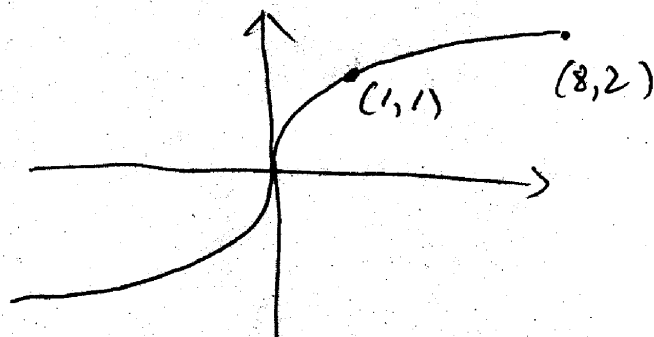
QUICK

NAME

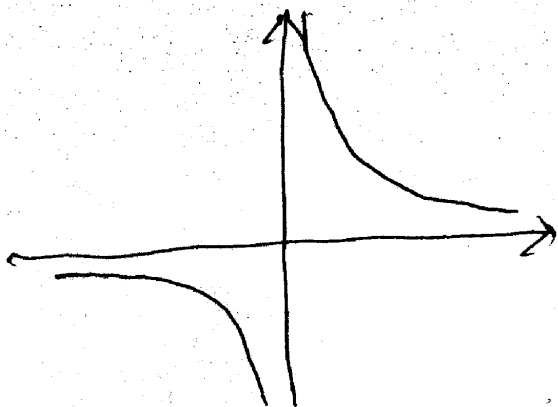
① Make a rough graph of each function



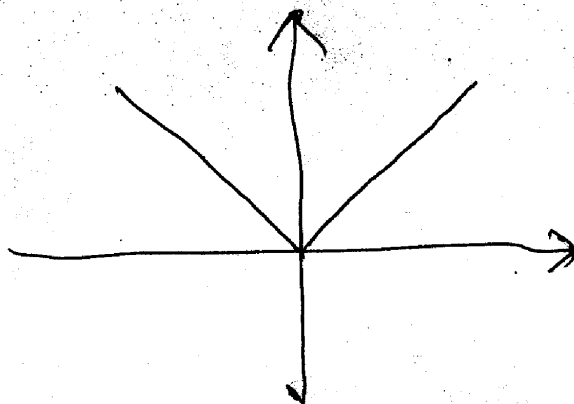
$y = x^2$



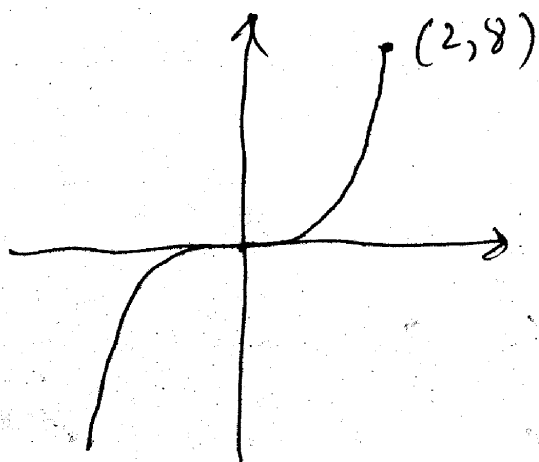
$y = x^{1/3}$



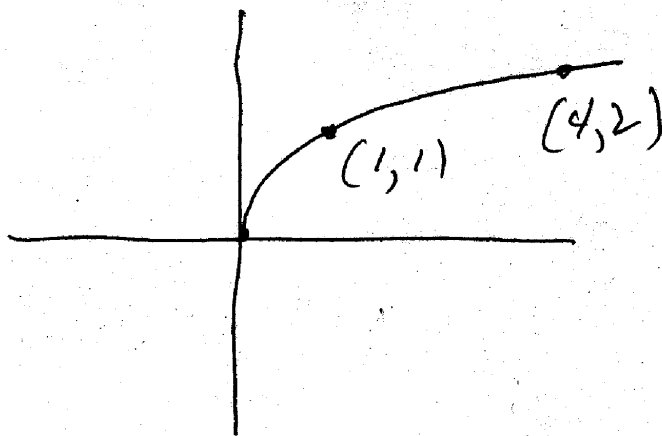
$y = \frac{1}{x}$



$y = |x|$



$y = x^3$



$y = x^{1/2}$

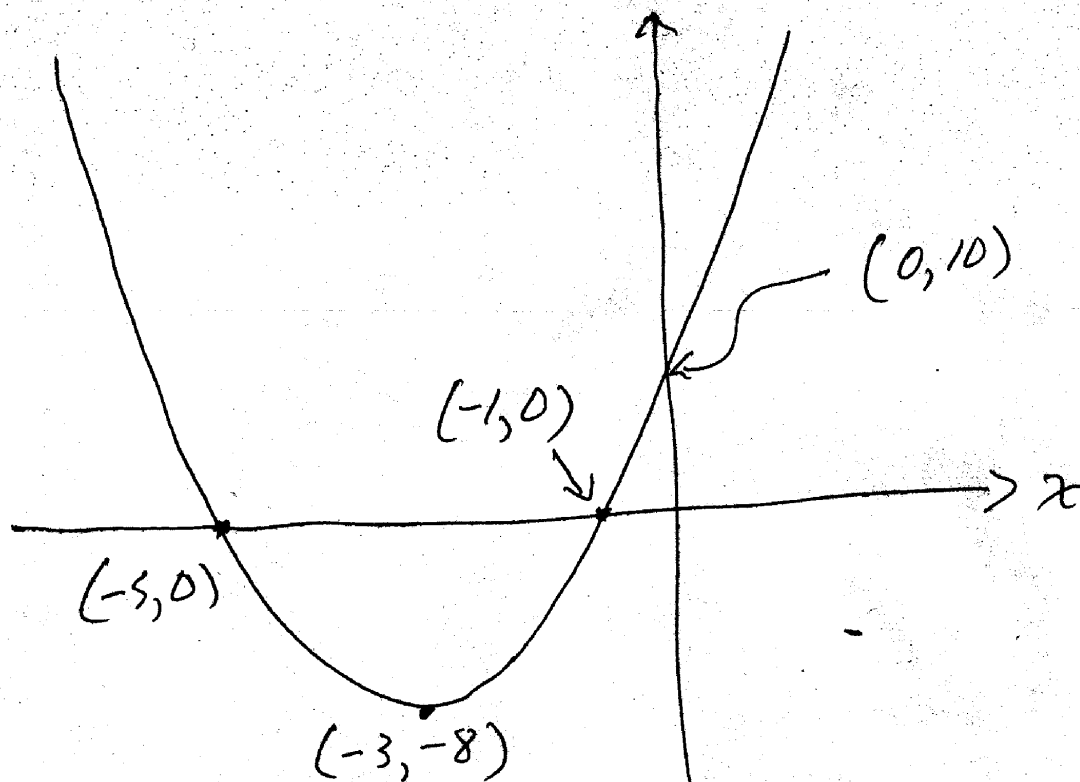
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② Make a graph of $f(x) = 2(x+3)^2 - 8$,
Label vertices and intercepts with
their coordinates.

$$f(-3) = -8 \text{ so vertex is } (-3, -8)$$

$$f(0) = 2(0+3)^2 - 8 = 2(3)^2 - 8 = 2(9) - 8 = 10$$



$$x\text{-intercepts: } 2(x+3)^2 = 8; (x+3)^2 = 4$$

$$\text{so } (x+3) = \pm 2 \text{ so } x = -3 \pm 2 \begin{matrix} \nearrow -3+2=-1 \\ \searrow -3-2=-5 \end{matrix}$$

$\therefore (-1, 0)$ and $(-5, 0)$ are the
x-intercepts