

MATCH EACH EQUATION WITH A GRAPH AND A DOMAIN

EQUATIONS

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

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

3. $f(x) = x^2 - 4$

4. $f(x) = x^3 + 7x^2 + 12x$

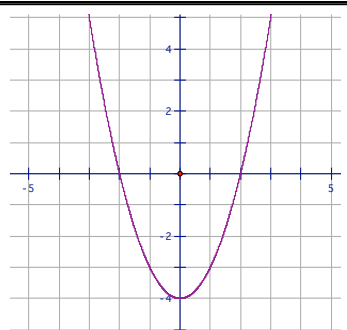
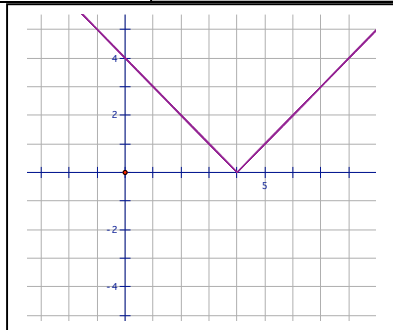
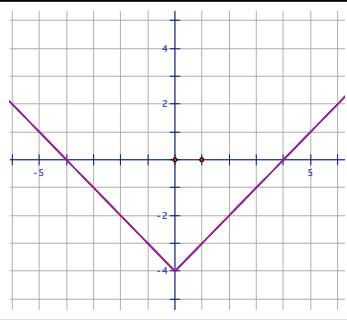
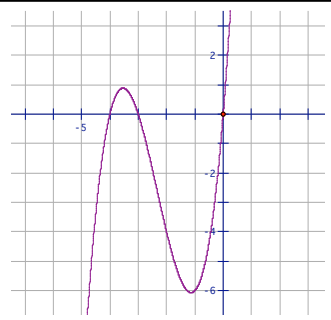
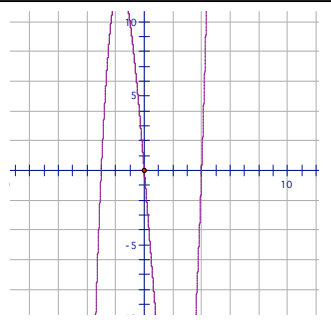
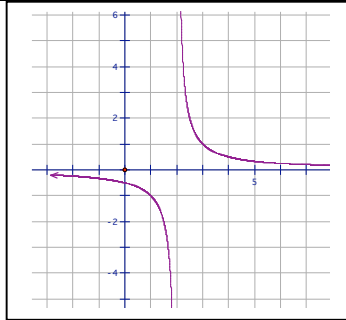
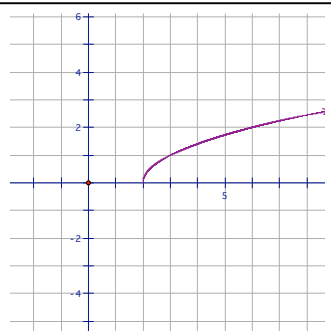
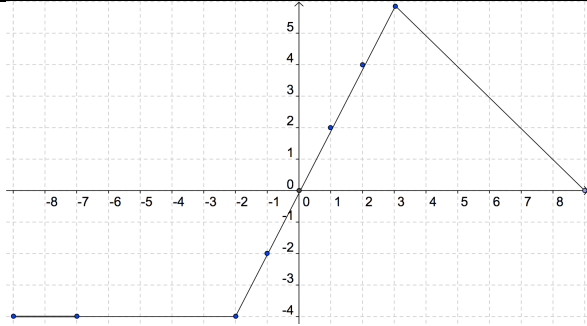
5. $f(x) = x^3 - x^2 - 12x$

6. $f(x) = \sqrt{x - 2}$

7. $f(x) = \frac{1}{x - 2}$

8. $f(x) = \begin{cases} -4, & x \leq -2 \\ 2x, & -2 < x \leq 3 \\ 9 - x, & x > 3 \end{cases}$

GRAPHS



DOMAINS

1. domain: all real numbers range: $y \geq -4$ zeros: $(-2, 0), (2, 0)$	5. domain: all real numbers range: all real numbers zeros: $(-3, 0), (0, 0), (4, 0)$
2. domain: all real numbers range: $y \geq -4$ zeros: $(-4, 0), (4, 0)$	6. domain: $x \geq 2$ range: $y \geq 0$ zeros: $(2, 0)$
3. domain: all real numbers range: $y \geq 0$ zeros: $(4, 0)$	7. domain: all reals, $x \neq 2$ range: all reals, $y \neq 0$ zeros: none
4. domain: all real numbers range: all real numbers zeros: $(-4, 0), (-3, 0), (0, 0)$	8. domain: all real numbers range: $-4 \leq y \leq 6$ zeros: $(0, 0), (9, 0)$