

# Attack Solutions

① Direct

②  $3 \sqrt[3]{x^8}$

③  $x=5$   $x=1$

④  $x^{1/3}$

⑤  $x=5$ ,  $x=-3$

⑥  $x=200$  revolutions

⑦ increases

⑧ Asymptotes  $y=0$   $x=4$   
Reflection

$$y = \frac{-1}{x-4}$$

⑨ Right 4, Up 1

⑩ Domain  $x \neq 4$ , Range  $y \neq 1$

⑪  $\sqrt[3]{y^4}$

⑫  $x=18$

⑬  $y = \sqrt{x+2} - 1$

(14)  $\sqrt{(2x)^5}$

(15) vertex  $(-3, -1)$

$$y = \sqrt{x+3} - 1$$

(16)  $y = \frac{1}{x-3} + 4$

(17) stretch by 3 UP 1

(18)  $x = 5$

(19) ~~19~~  $s^{7/2}$

(20) Direct

(21) Domain:  $[2, \infty)$  Range:  $(-\infty, 1]$

(22)  $x = -5$   $x = 2$

(23)  $y = -\sqrt{x+5} + 6$

(24) Reflect in  $x$ -axis, Down 3

(25)  $x = -90$

(26) Asymptotes:  $x = 2$   $y = 3$

$$y = \frac{1}{x-2} + 3$$

(27) Inverse.