

1. a) Neither
 b) Inverse variation, $k = 124$, $xy = 124$ or $y = \frac{124}{x}$, $x = 1.24$ when $y = 100$
 c) Direct variation, $k = 4.5$, $\frac{y}{x} = 4.5$ or $y = 4.5x$, $x = 22.\bar{2}$ when $y = 100$

2. $H = \frac{kMN}{P^2}$ 3. $E = \frac{kBG^3}{JK^2}$

4. a) $k = 20$ b) $A = \frac{240}{49} \approx 4.90$ c) $D = 33.75$

5. $\frac{3x(x+3)}{4(x+2)}$ $x \neq 0, \pm 2$ 6. $\frac{2}{x(x-1)}$

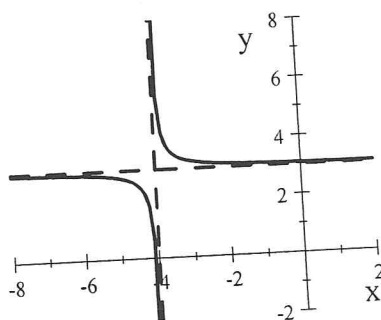
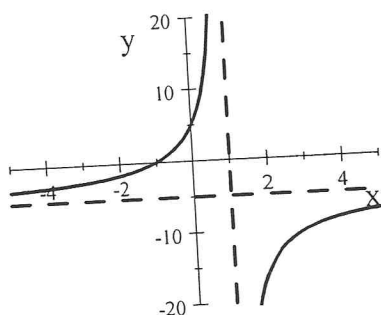
7. $\frac{4(x-8)}{2x+1}$ 8. $\frac{2x^2+13x}{(x+1)(x-1)(x+2)}$ 9. $\frac{3x+8}{x(x+4)^2}$

10. $\frac{6y^2+x^3y^2}{4x^3}$ 11. $\frac{7x-4}{4x-5}$ 12. $\frac{7y^2+3x^4y}{2x^4-x^2y^2}$ 13. $\frac{4x+8}{3x+10}$

14. $x = -13.5$ 15. $x = -1, 12$ 16. $x = 5$ 17. $x = 20$

18. a) $\frac{-3}{x+2} - 4$ b) $\frac{3}{x-3} + 1$

19. a) b)



20. Holes: $x = -4, 0$ VA: $x = -7, 5$ 21. a) HA: NONE b) HA: $y = \frac{8}{3}$ c) HA: $y = 0$

22.a) VA: $x = -2, 3$ HA: $y = 0$
 x-int: $x = -4$ y-int: $y = -\frac{2}{3}$

b) VA: $x = -1, 4$ HA: $y = 3$
 x-int: $x = -\frac{1}{3}, 5$ y-int: $y = \frac{5}{4}$

