

38 pts

Name: Key A

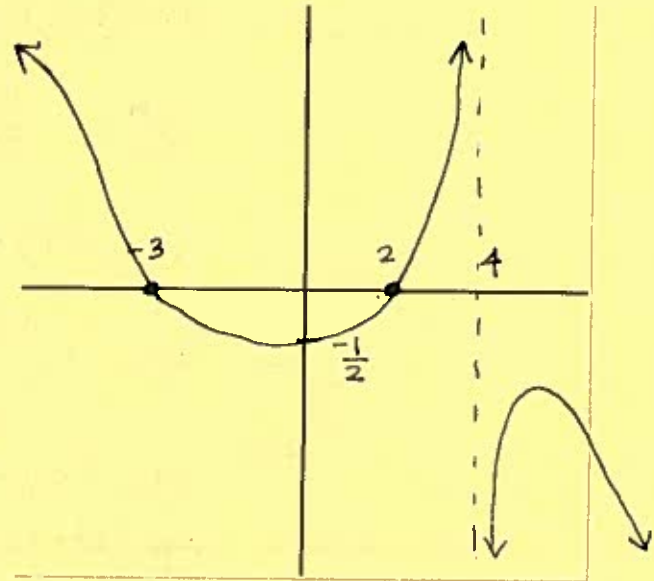
UID: \_\_\_\_\_

1. False 14.  $\mathbb{R} - \{-2, 1, -4\}$
2. True 15.  $2^{14} = \frac{10x}{x-1}$
3. False 16.  $\log_e(4) = x^2 - 3x + 2$
4. True 17.  $\log_{10}\left(\frac{xy(x-1)}{z}\right)$
5. True 18.  $\log_{12}(x) - 2\log_{10}(y) - \log_{10}(z)$
6. True 19.  $\frac{\log_e(x^2+2)}{\log_e(4)}$
7. True 20.  $\uparrow$
8. False 21.  $x = 1$  or  $-2$
9.  $2(x - \frac{1}{2})$  22.  $x = -1$  or  $3$
10.  $1, -3$  23.  $10 \cdot 2^t$
11.  $-5$  24.  $a^{\frac{12-2}{5}} = a^{\frac{10}{5}} = a^2$
12.  $-\frac{1}{3x}$  25.  $0$
13.  $\mathbb{R}$

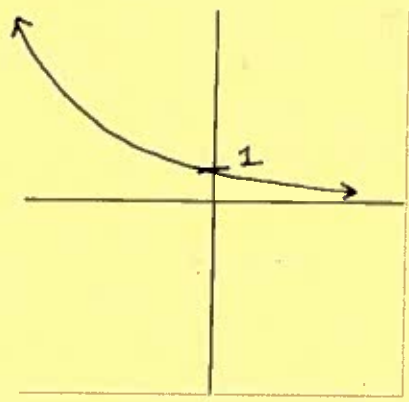
26 pts

$$f(0) = \frac{-1 \cdot (-2) \cdot (3) \cdot (1)}{3 \cdot (-4) \cdot (2)} = -\frac{1}{2}$$

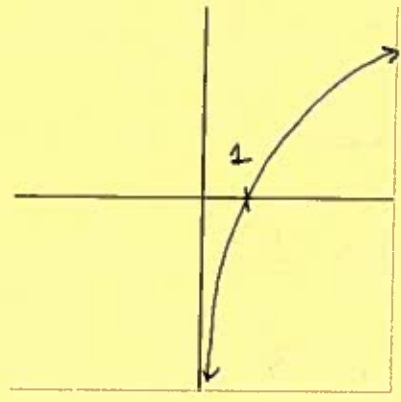
26.  $f(x) = \frac{-2(x-2)(x+3)(x^2+1)}{3(x-4)(x^2+2)}$



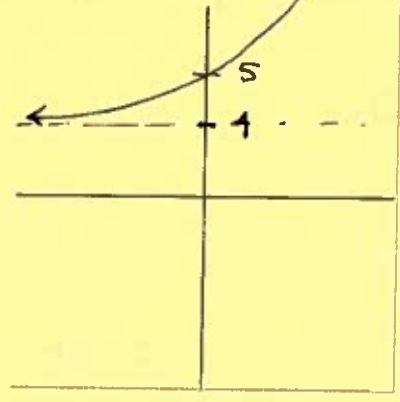
27.  $h(x) = (\frac{1}{2})^x$



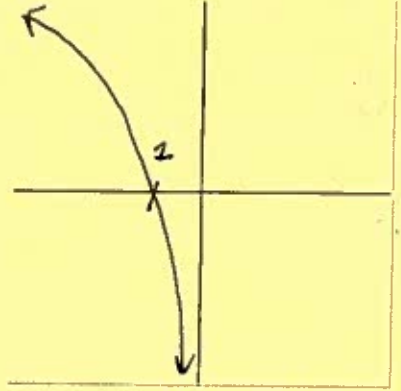
28.  $g(x) = \log_{10}(x)$



29.  $k(x) = 2^x + 4$



30.  $l(x) = \log_5(-x)$



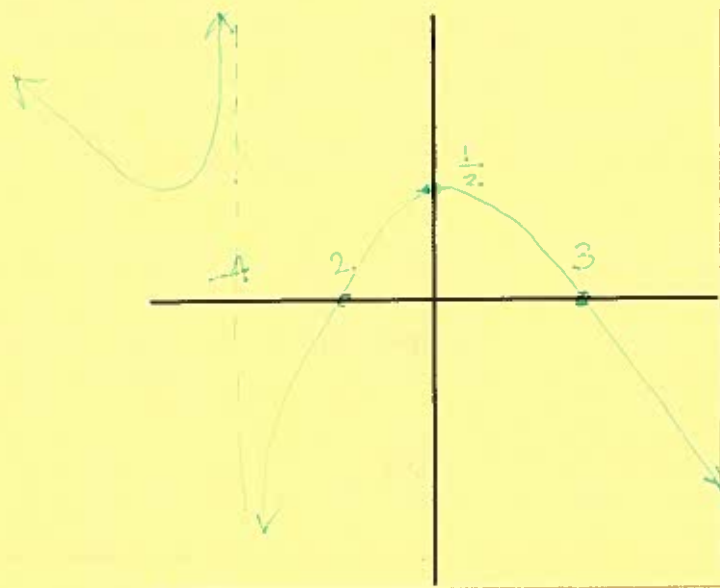
12 pts

Name: Key B

UID: \_\_\_\_\_

1. True
2. True
3. False
4. False
5. True
6. True
7. False
8. True
9.  $5(x-2)$
10.  $-5$
11.  $1, -3$
12.  $-3x$
13.  $\mathbb{R}$
14.  $\mathbb{R} - \{-1, 3\}$
15.  $4^{14} = \frac{x-1}{10x}$
16.  $\log_{10}(5) = x^2 + 3x - 2$
17.  $\log_{10}\left(\frac{x^4 z}{x^2 1}\right)$
18.  $\log_{12}(x) + \log_{12}(y) - 2\log_{12}(z)$
19.  $\frac{\log_4(x^2+z)}{\log_4(e)}$
20.  $2$
21.  $x = -1$  or  $x = 3$
22.  $x = -2$  or  $x = 1$
23.  $7 \cdot 2^5$
24.  $3, \frac{12}{4}, \frac{15-3}{4}$  all o.k.
25.  $5$

$$26. f(x) = \frac{-2(x+2)(x-3)(x^2+1)}{3(x+4)(x^2+2)}$$

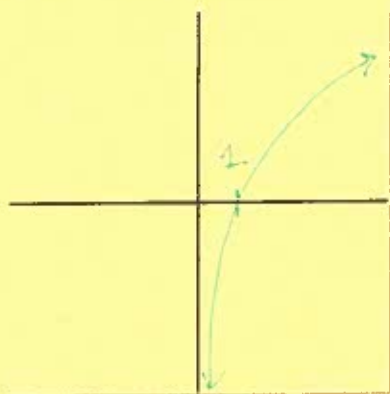


$$f(0) = \frac{-2(2)(-3)(1)}{3(4)(2)}$$

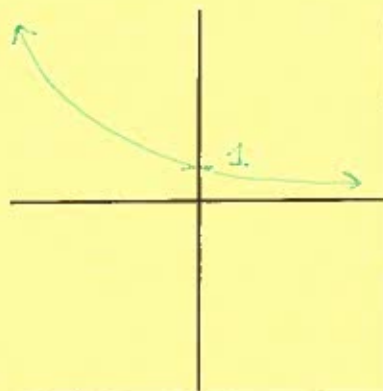
$$= \frac{2}{4} = \frac{1}{2}$$

$$\frac{-2x^3}{3x^3} = -\frac{2}{3}x$$

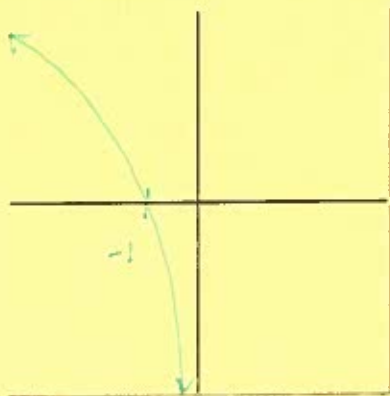
$$27. g(x) = \log_{10}(x)$$



$$28. h(x) = \left(\frac{1}{2}\right)^x$$



$$29. l(x) = \log_5(-x)$$



$$30. k(x) = 2^x + 4$$

