

You have to use long division!

10. $f(x) = \frac{5}{x+3}$

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

holes: _____ Slant: _____

11. $f(x) = \frac{1-5x}{1+2x}$

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

holes: _____ Slant: _____

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

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

holes: _____ Slant: _____

13. $f(x) = \frac{2x^2 - 11x + 12}{x + 4}$

Vert: $x = -4$ Hor: none

x-Int.: $(\frac{3}{2}, 0), (4, 0)$ y-int: $(0, 3)$

holes: none Slant: $y = 2x - 19$

$$\begin{array}{r} -4 \overline{) 2 \ -11 \ 12} \\ \underline{2 \ -19 \ 88} \end{array}$$

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

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

holes: _____ Slant: _____

15. $f(x) = \frac{x + 4}{4x^2 + 4x - 48}$

Vert: $x = 3$ Hor: $y = 0$

x-Int.: none y-int: $(0, -\frac{1}{12})$

holes: $(-4, \frac{1}{24})$ Slant: none

16. $f(x) = \frac{x^3 + x^2 - 6x}{-3x^3 + 6x^2 + 9x}$

Vert: $x = 3, x = -1$ Hor: $y = \frac{1}{3}$

x-Int.: $(-3, 0), (2, 0)$ y-int: none

holes: $(0, -\frac{2}{3})$ Slant: none

17. $f(x) = \frac{-4}{x-3}$

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

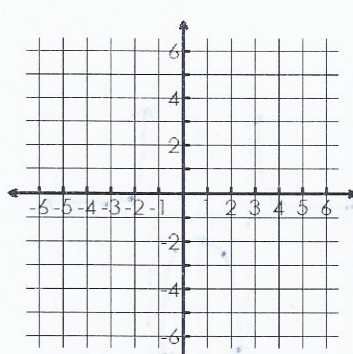
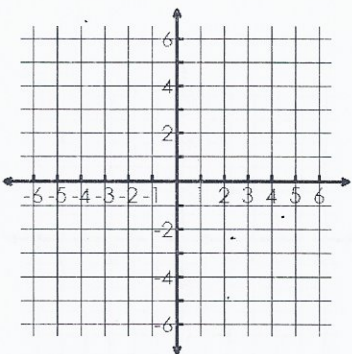
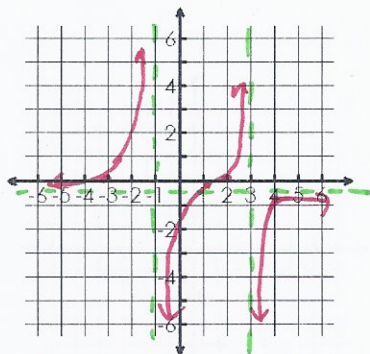
holes: _____ Slant: _____

18. $f(x) = \frac{x^2 - 2x - 3}{x - 2}$

Vert: _____ Hor: _____

x-Int.: _____ y-int: _____

holes: _____ Slant: _____



$$\frac{x(x^2 + x + 6)}{-3x(x^2 - 2x - 3)} = \frac{x(x+3)(x-2)}{-3x(x-3)(x+1)}$$

$$\frac{(x+3)(x-2)}{-3(x-3)(x+1)}$$