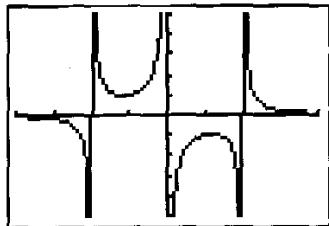


p246 23-43, skip divisible by 4

26. No intercepts

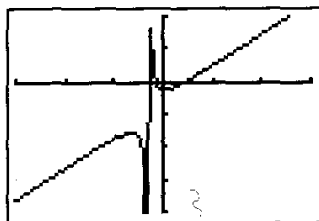
Asymptotes:  $x = -2, x = 0, x = 2,$  and  $y = 0.$



$[-4, 4]$  by  $[-5, 5]$

30. Intercepts:  $(0, -\frac{7}{3}), (-1.54, 0),$  and  $(4.54, 0)$

Asymptotes:  $x = -3, y = x - 6$

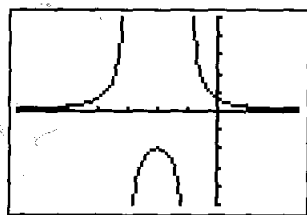


$[-30, 30]$  by  $[-40, 20]$

34. (f);  $X_{min} = -6, X_{max} = 2, X_{scl} = 1,$  and  $Y_{min} = -5, Y_{max} = 5, Y_{scl} = 1$

38. Intercept:  $(0, \frac{2}{3});$  asymptotes:  $x = -3, x = -1, y = 0;$   $\lim_{x \rightarrow -3^-} g(x) = \infty, \lim_{x \rightarrow -3^+} g(x) = -\infty, \lim_{x \rightarrow -1^-} g(x) = -\infty,$

$\lim_{x \rightarrow -1^+} g(x) = \infty$



$[-6.7, 2.7]$  by  $[-5, 5]$

Domain:  $x \neq -3, -1;$  Range:  $(-\infty, -2] \cup (0, \infty);$

Continuity: all  $x \neq -3, -1;$

Increasing:  $(-\infty, -3), (-3, -2];$  Decreasing:  $[-2, -1), (-1, \infty);$

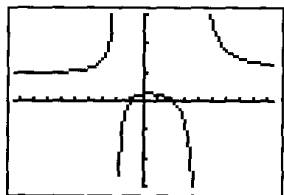
No symmetry; Unbounded; Local maximum at  $(-2, -2);$

Horizontal asymptote:  $y = 0;$  Vertical asymptotes:  $x = -3, x = -1;$

End behavior:  $\lim_{x \rightarrow -\infty} g(x) = \lim_{x \rightarrow \infty} g(x) = 0$

42. Intercepts:  $(-1, 0), (2, 0), (0, \frac{1}{4});$  asymptotes:  $x = -2, x = 4, y = 1;$   $\lim_{x \rightarrow -2^-} g(x) = \infty, \lim_{x \rightarrow -2^+} g(x) = -\infty, \lim_{x \rightarrow 4^-} f(x) = -\infty,$

$\lim_{x \rightarrow 4^+} g(x) = \infty$



$[-9.4, 9.4]$  by  $[-3, 3]$

Domain:  $x \neq -2, 4;$  Range:  $(-\infty, 0.260] \cup (1, \infty);$

Continuity: all  $x \neq -2, 4;$

Increasing  $(-\infty, -2), (-2, 0.324];$  Decreasing:  $[0.324, 4), (4, \infty);$

No symmetry; Unbounded; Local maximum at  $(0.324, 0.260);$

Horizontal asymptote:  $y = 1;$  Vertical asymptotes:  $x = -2, x = 4;$

End behavior:  $\lim_{x \rightarrow -\infty} g(x) = \lim_{x \rightarrow \infty} g(x) = 1$

1. Solve the equation algebraically. Check for extraneous solutions.

$$\frac{1}{x} - \frac{2}{x-3} = 4$$

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2. Solve algebraically and check for extraneous solutions. Confirm your answer graphically.

$$2 - \frac{3}{x+4} = \frac{12}{x^2 + 4x}$$

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3. Solve algebraically and check for extraneous solutions. Confirm your answer graphically.

$$\frac{x+2}{x} - \frac{4}{x-1} + \frac{2}{x^2-x} = 0$$

4. Solve the equation.

$$\frac{3x}{x+1} + \frac{5}{x-2} = \frac{15}{x^2 - x - 2}$$