Solutions – Properties of Rational Graphs (A)

$y = -1/(x - 2) + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 2$, $y = 1$, Axis Intercepts: $(3, 0)$, $(0, 3/2)$

$y = -1/(x + 2) - 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -2$, $y = -5$, Axis Intercepts: $(-11/5, 0)$, $(0, -11/2)$

$y = -1/(x - 6) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 3$, Axis Intercepts: $(19/3, 0)$, $(0, 19/6)$

$y = -6/(x - 5) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 5$, $y = -2$, Axis Intercepts: $(2, 0)$, $(0, -4/5)$

$y = 5/(x - 3) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 3$, $y = 3$, Axis Intercepts: $(4/3, 0)$, $(0, 4/3)$

$y = -6/(x - 1) - 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 1$, $y = -5$, Axis Intercepts: $(-1/5, 0)$, $(0, 1)$

Solutions – Properties of Rational Graphs (B)

$y = -6/(x - 6) + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 1$, Axis Intercepts: $(12, 0)$, $(0, 2)$

$y = -5/(x - 2) - 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 2$, $y = -6$, Axis Intercepts: $(7/6, 0)$, $(0, -7/2)$

$y = 3/(x - 6) + 4$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 4$, Axis Intercepts: $(21/4, 0)$, $(0, 7/2)$

$y = -1/(x - 4) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 4$, $y = -2$, Axis Intercepts: $(7/2, 0)$, $(0, -7/4)$

$y = 3/(x + 4) - 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = -5$, Axis Intercepts: $(-17/5, 0)$, $(0, -17/4)$

$y = -4/(x - 2) - 4$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 2$, $y = -4$, Axis Intercepts: $(1, 0)$, $(0, -2)$

Solutions – Properties of Rational Graphs (C)

$y = 1/x + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 0$, $y = 5$, Axis Intercepts: $(-1/5, 0)$

$y = 4/(x - 6) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 6$, Axis Intercepts: $(16/3, 0)$, $(0, 16/3)$

$y = -6/(x + 5) + 4$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -5$, $y = 4$, Axis Intercepts: $(-7/2, 0)$, $(0, 14/5)$

$y = 5/(x + 2) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -2$, $y = -1$, Axis Intercepts: $(3, 0)$, $(0, 3/2)$

$y = -1/(x + 3) + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -3$, $y = 1$, Axis Intercepts: $(-2, 0)$, $(0, 2/3)$

$y = 2/(x + 3) - 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -3$, $y = -5$, Axis Intercepts: $(-13/5, 0)$, $(0, -13/3)$

Solutions – Properties of Rational Graphs (D)

$y = -5/(x - 1) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 1$, $y = -2$, Axis Intercepts: $(-3/2, 0)$, $(0, 3)$

$y = 1/x + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 0$, $y = 1$, Axis Intercepts: $(-1, 0)$

$y = -4/(x + 3) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -3$, $y = 3$, Axis Intercepts: $(-5/3, 0)$, $(0, 5/3)$

$y = -3/(x - 3) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 3$, $y = 6$, Axis Intercepts: $(7/2, 0)$, $(0, 7)$

$y = -2/(x + 1) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -1$, $y = -1$, Axis Intercepts: $(-3, 0)$, $(0, -3)$

$y = 3/(x - 1) + 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 1$, $y = 2$, Axis Intercepts: $(-1/2, 0)$, $(0, -1)$

Solutions – Properties of Rational Graphs (E)

$y = 5/(x - 6) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = -1$, Axis Intercepts: $(11, 0)$, $(0, -11/6)$

$y = -3/(x - 6) - 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = -5$, Axis Intercepts: $(27/5, 0)$, $(0, -9/2)$

$y = -5/(x + 1) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -1$, $y = 6$, Axis Intercepts: $(-1/6, 0)$, $(0, 1)$

$y = -2/(x - 2) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 2$, $y = -2$, Axis Intercepts: $(1, 0)$, $(0, -1)$

$y = 4/(x + 6) + 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -6$, $y = 2$, Axis Intercepts: $(-8, 0)$, $(0, 8/3)$

$y = -1/(x + 1) + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -1$, $y = 1$, Axis Intercepts: $(0, 0)$

Solutions – Properties of Rational Graphs (F)

$y = -5/(x + 4) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = -1$, Axis Intercepts: $(-9, 0)$, $(0, -9/4)$

$y = -4/(x + 4) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = 6$, Axis Intercepts: $(-10/3, 0)$, $(0, 5)$

$y = -4/(x + 3) + 4$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -3$, $y = 4$, Axis Intercepts: $(-2, 0)$, $(0, 8/3)$

$y = 4/(x + 4)$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = 0$, Axis Intercepts: $(0, 1)$

$y = -4/(x + 2) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -2$, $y = -1$, Axis Intercepts: $(-6, 0)$, $(0, -3)$

$y = 4/(x - 4) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 4$, $y = -1$, Axis Intercepts: $(8, 0)$, $(0, -2)$

Solutions – Properties of Rational Graphs (G)

$y = 1/(x + 4) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = 5$, Axis Intercepts: $(-21/5, 0)$, $(0, 21/4)$

$y = 4/(x - 6) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 5$, Axis Intercepts: $(26/5, 0)$, $(0, 13/3)$

$y = -4/(x - 5)$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 5$, $y = 0$, Axis Intercepts: $(0, 4/5)$

$y = -5/(x - 4) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 4$, $y = 5$, Axis Intercepts: $(5, 0)$, $(0, 25/4)$

$y = -6/(x - 3) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 3$, $y = 5$, Axis Intercepts: $(21/5, 0)$, $(0, 7)$

$y = -2/(x + 4)$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = 0$, Axis Intercepts: $(0, -1/2)$

Solutions – Properties of Rational Graphs (H)

$y = -4/(x - 6) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 3$, Axis Intercepts: $(22/3, 0)$, $(0, 11/3)$

$y = -4/(x + 2) - 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -2$, $y = -3$, Axis Intercepts: $(-10/3, 0)$, $(0, -5)$

$y = -1/(x - 4) + 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 4$, $y = 2$, Axis Intercepts: $(9/2, 0)$, $(0, 9/4)$

$y = -5/(x + 2) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -2$, $y = 6$, Axis Intercepts: $(-7/6, 0)$, $(0, 7/2)$

$y = -6/(x - 2) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 2$, $y = -2$, Axis Intercepts: $(-1, 0)$, $(0, 1)$

$y = -4/(x + 5)$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -5$, $y = 0$, Axis Intercepts: $(0, -4/5)$

Solutions – Properties of Rational Graphs (I)

$y = 3/(x + 5) - 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -5$, $y = -2$, Axis Intercepts: $(-7/2, 0)$, $(0, -7/5)$

$y = -3/(x + 4) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = 3$, Axis Intercepts: $(-3, 0)$, $(0, 9/4)$

$y = -4/(x - 6) + 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = 2$, Axis Intercepts: $(8, 0)$, $(0, 8/3)$

$y = 5/(x - 5) + 2$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 5$, $y = 2$, Axis Intercepts: $(5/2, 0)$, $(0, 1)$

$y = 1/(x - 6) - 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 6$, $y = -3$, Axis Intercepts: $(19/3, 0)$, $(0, -19/6)$

$y = 3/(x - 5) + 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 5$, $y = 1$, Axis Intercepts: $(2, 0)$, $(0, 2/5)$

Solutions – Properties of Rational Graphs (J)

$y = -5/(x + 6) + 3$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -6$, $y = 3$, Axis Intercepts: $(-13/3, 0)$, $(0, 13/6)$

$y = -6/(x - 4) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = 4$, $y = 5$, Axis Intercepts: $(26/5, 0)$, $(0, 13/2)$

$y = -6/(x + 4) - 1$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = -1$, Axis Intercepts: $(-10, 0)$, $(0, -5/2)$

$y = 2/(x + 5) + 6$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -5$, $y = 6$, Axis Intercepts: $(-16/3, 0)$, $(0, 32/5)$

$y = -5/(x + 4) - 4$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -4$, $y = -4$, Axis Intercepts: $(-21/4, 0)$, $(0, -21/4)$

$y = 3/(x + 3) + 5$. Find all asymptotes and axis intercepts.

Asymptotes: $x = -3$, $y = 5$, Axis Intercepts: $(-18/5, 0)$, $(0, 6)$