Task card 1 Rational Functions: Asymptotes & H...

Find the vertical asymptote of $f(x) = \frac{2x - 9}{x + 4}$.

Task card 2 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{-8x - 2}{5x + 6}$.

Task card 3 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{3x - 5}{x^2 - 2x + 7}$.

Task card 4 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{4x + 8}{x - 4}$. Write it as $x = a$.

Task card 5 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{x - 4}{x - 1}$. Write it as $x = a$.

Task card 6 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{2x - 2}{x + 4}$. Write it as $x = a$.

Task card 7 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{x + 6}{3x^2 + x + 9}$.

Task card 8 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{3x - 3}{3x^2 - x + 2}$.

Task card 9 Rational Functions: Asymptotes & H...

Find the vertical asymptote of $f(x) = \frac{5x - 5}{x + 3}$.

Task card 10 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{-8x + 6}{6x + 5}$.

Task card 11 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{3x - 1}{2x^2 - 2x + 5}$.

Task card 12 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{3x + 15}{x + 2}$. Write it as $x = a$.

Task card 13 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{6x - 4}{x^2 + 2x + 7}$.

Task card 14 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{3x + 3}{x - 8}$.

Task card 15 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{-7x - 3}{2x - 6}$.

Task card 16 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{x + 4}{x + 2}$. Write it as x = a.

Task card 17 Rational Functions: Asymptotes & H...

Find the vertical asymptote of $f(x) = \frac{2x - 8}{x + 5}$.

Task card 18 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{5x + 2}{4x + 1}$.

Task card 19 Rational Functions: Asymptotes & H...

Find the vertical asymptotes of $f(x) = \frac{x - 6}{x^2 - 2x - 15}$.

Task card 20 Rational Functions: Asymptotes & H...

The graph of $f(x) = \frac{x^2 - 2x - 3}{x - 3}$ has a hole at $x = 3$. Find the y-coordinate of the hole.

Task card 21 Rational Functions: Asymptotes & H...

Find the x-intercept of $f(x) = \frac{3x - 15}{x + 5}$. Write it as $x = a$.

Task card 22 Rational Functions: Asymptotes & H...

Find the horizontal asymptote of $f(x) = \frac{5x - 7}{2x^2 - 2x + 8}$.

Task card 23 Rational Functions: Asymptotes & H...

Find the vertical asymptote of $f(x) = \frac{x - 5}{x + 2}$.

Task card 24 Rational Functions: Asymptotes & H...

Find the vertical asymptote of $f(x) = \frac{2x + 8}{x - 5}$.

Rational Functions: Asymptotes & Holes Task Cards

Recording sheet · Grade 12 · Answer each question. Write vertical asymptotes like x = 3 (two of them: x = -1 or x = 3) and horizontal or slant asymptotes like y = 2/3 or y = x + 1.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Rational Functions: Asymptotes & Holes Task Cards: Answer Key

Grade 12 · Easy

The answers online

1. x = -4	**2.** $y = -\frac{8}{5}$	**3.** y = 0
4. x = -2	**5.** x = 4	**6.** x = 1
7. y = 0	**8.** y = 0	**9.** x = -3
10. $y = -\frac{4}{3}$	**11.** y = 0	**12.** x = -5
13. y = 0	**14.** y = 3	**15.** $y = -\frac{7}{2}$
16. x = -4	**17.** x = -5	**18.** $y = \frac{5}{4}$
19. x = -3 or x = 5	**20.** 4	**21.** x = 5
22. y = 0	**23.** x = -2	**24.** x = 5