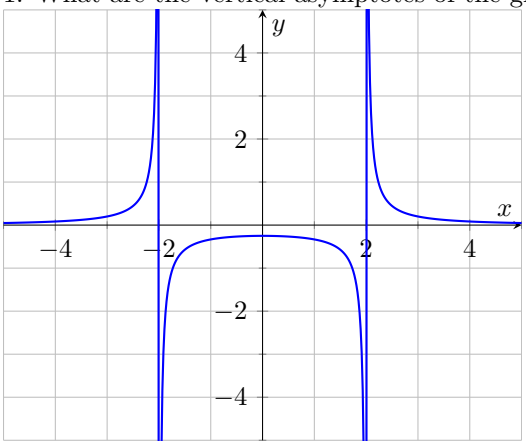
1. What are the vertical asymptotes of the graph below?



A. The vertical asymptotes are $x = 3$ and $x = -3$

B. The vertical asymptotes are $x = 2$ and $x = -2$

C. The vertical asymptotes are $x = 1$ and $x = -1$

D. The vertical asymptotes are $x = 4$ and $x = 0$

E. The vertical asymptotes are $x = 0$ and $x = 3$

F. The vertical asymptotes are $x = -4$ and $x = 1$

G. The vertical asymptotes are $x = -2$ and $x = -4$

H. The vertical asymptotes are $x = -1$ and $x = 4$

2. Reduce the rational expression $\frac{2\phi^2-\phi t-10t^2}{4\phi^2+\phi t-14t^2}$ to lowest terms. Assume that the variables are restricted to values that prevent division by 0.

A. $\frac{2\phi-5t}{8\phi-4}$

B. $\frac{3}{5\phi+6}$

C. $\frac{3}{5\phi}$

D. $\frac{2\phi-5t}{7\phi+6}$

E. $\frac{7\phi-5}{4\phi-7t}$

F. $\frac{2\phi-5t}{4\phi-7t}$

G. $\frac{5\phi+11}{4\phi-7t}$

H. $\frac{5\phi}{4\phi-7t}$

3. Reduce the rational expression $\frac{12\kappa^2+55\kappa n+63n^2}{-24\kappa n-54n^2}$ to lowest terms. Assume that the variables are restricted to values that prevent division by 0.

A. $\frac{5\kappa+6}{-6n}$

B. $\frac{3\kappa+7n}{5\kappa+5}$

C. $\frac{4}{5\kappa+5}$

D. $\frac{5\kappa}{-6n}$

E. $\frac{7\kappa-9}{-6n}$

F. $\frac{4}{5\kappa}$

G. $\frac{3\kappa+7n}{7\kappa-7}$

H. $\frac{3\kappa+7n}{-6n}$

4. Reduce the rational expression $\frac{12a^2-5a-3}{-12a-4}$ to lowest terms. Assume that the variables are restricted to values that prevent division by 0.

A. $\frac{4a-3}{6a+7}$

B. $\frac{7a+11}{-4}$

C. $\frac{3a}{-4}$

D. $\frac{4}{3a}$

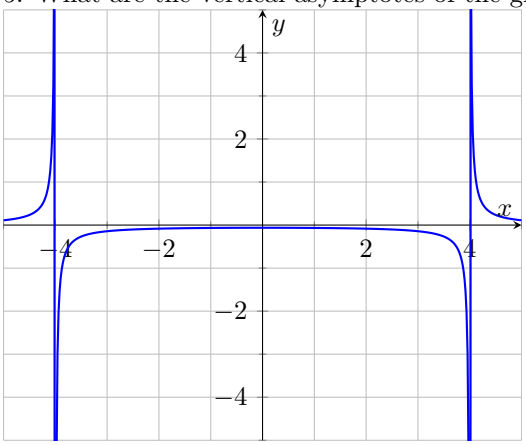
E. $\frac{4a-3}{-4}$

F. $\frac{4}{3a+7}$

G. $\frac{5a-4}{-4}$

H. $\frac{4a-3}{5a-6}$

5. What are the vertical asymptotes of the graph below?



A. The vertical asymptotes are $x = 0$ and $x = 1$

B. The vertical asymptotes are $x = -4$ and $x = 4$

C. The vertical asymptotes are $x = 3$ and $x = 2$

D. The vertical asymptotes are $x = -2$ and $x = -1$

E. The vertical asymptotes are $x = 4$ and $x = 3$

F. The vertical asymptotes are $x = 2$ and $x = -2$

G. The vertical asymptotes are $x = -1$ and $x = 0$

H. The vertical asymptotes are $x = 1$ and $x = -3$

6. Reduce the rational expression $\frac{49\theta^2-64}{28\theta+32}$ to lowest terms. Assume that the variables are restricted to values that prevent division by 0.

A. $-\frac{3z-8q}{7\theta-8}$

B. $-\frac{3z-8q}{3}$

C. $-\frac{3}{3z-8q}$

D. $-\frac{4}{7\theta-8}$

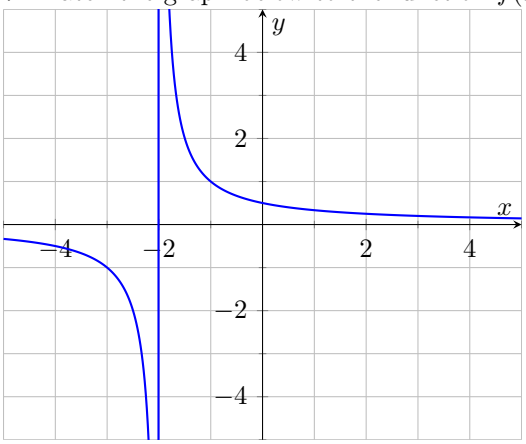
E. $-\frac{7\theta-8}{4}$

F. $\frac{7\theta-8}{3z-8q}$

G. $\frac{4}{7\theta-8}$

H. $\frac{7\theta-8}{4}$

7. Match the graph below to the function $f(x)$.



A. $f(x) = \frac{1}{x+1}$

B. $f(x) = \frac{1}{x-3}$

C. $f(x) = \frac{1}{x+3}$

D. $f(x) = \frac{1}{x+4}$

E. $f(x) = \frac{1}{x+2}$

F. $f(x) = \frac{1}{x-2}$

G. $f(x) = \frac{1}{x-4}$

H. $f(x) = \frac{1}{x-1}$

8. Reduce the rational expression $\frac{w^2+16w+64}{w^2+3w-40}$ to lowest terms. Assume that the variables are restricted to values that prevent division by 0.

A. $\frac{6w-6}{w-5}$

B. $\frac{8w+3}{w-5}$

C. $\frac{4}{4w+10}$

D. $\frac{4w}{w-5}$

E. $\frac{w+8}{8w-3}$

F. $\frac{4}{4w}$

G. $\frac{w+8}{7w+10}$

H. $\frac{w+8}{w-5}$