PRINTABLE VERSION

Quiz 19

Question 1

Find the *x*-intercept(s) of the function

$$f(x) = \frac{x - 1}{x - 8}$$

a) ○ $x = 1,\ x = 8$

b) ○ There are no *x*-intercepts.

c) ○ $x = -1$

d) ○ $x = 1$

e) ○ $x = 8$

f) ○ None of the above

Question 2

Find the *y*-intercept(s) of the function

$$f(x) = \frac{x + 10}{x - 8}$$

a) ○ 10

b) ○ $-\dfrac{5}{4}$

c) ○ There are no *y*-intercept.

d) ○ $\dfrac{5}{4}$

e) ○ -10

f) ○ None of the above

Question 3

Find the horizontal asymptote(s), if any, of the function

$$f(x) = \frac{x - 11}{x + 7}$$

a) ○ $y = 1$

b) ○ $y = 0$

c) ○ $y = 11$

d) ○ There are no horizontal asymptotes.

e) ○ $y = -7$

f) ○ None of the above

Question 4

Find the vertical asymptote(s), if any, of the function

$$f(x) = -\frac{3}{x + 9}$$

a) ○ $x = 3$

b) ○ There are no vertical asymptotes.

c) ○ $x = -9$

d) ○ $x = -3$

e) ○ $x = 9$

f) ○ None of the above

Question 5

Find any holes of the function

$$f(x) = \frac{x^2 + 17x + 70}{x + 7}$$

a) ○ $x = -7$

b) ◯ There are no holes.

c) ◯ $x = -10$

d) ◯ $x = 7$

e) ◯ $x = 6$

f) ◯ None of the above

Question 6

Find the x-intercept(s) of the function

$$f(x) = \frac{x + 12}{x^2 + 13\,x + 12}$$

a) ◯ There are no x-intercepts.

b) ◯ $x = 10$

c) ◯ $x = -1$

d) ◯ $x = -12$

e) ◯ $x = -12,\ x = -1$

f) ◯ None of the above

Question 7

Find the vertical asymptote(s), if any, of the function

$$f(x) = \frac{x^2 - 5\,x - 24}{x + 3}$$

a) ◯ $x = 8$

b) ◯ $x = -3$

c) ◯ There are no vertical asemptotes.

d) ◯ $x = 8,\ x = -3$

e) ◯ $x = 1$

f) ○ None of the above

Question 8

Find the horizontal asymptote(s), if any, of the function

$$f(x) = \frac{x^2 + 10\,x + 25}{2\,x^2 + 25}$$

a) ○ $y = 2$

b) ○ $y = \dfrac{1}{2}$

c) ○ There are no horizontal asemptotes.

d) ○ $y = 0$

e) ○ $y = -5$

f) ○ None of the above

Question 9

Find the function, whose graph is shown below
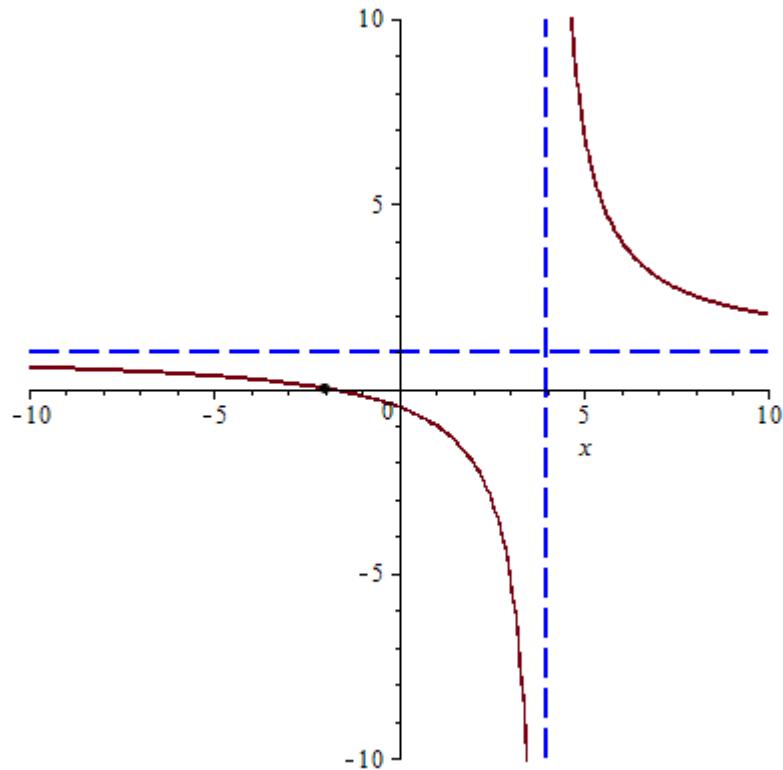
a) ○ $f(x) = \dfrac{x + 2}{x + 4}$

b) ○ $f(x) = \dfrac{x - 2}{x + 4}$

c) ○ $f(x) = \dfrac{x - 4}{x + 2}$

d) ○ $f(x) = \dfrac{x + 2}{x - 4}$

e) ○ $f(x) = \dfrac{x - 2}{x - 4}$

f) ○ None of the above

Question 10

Find the function, whose graph is shown below
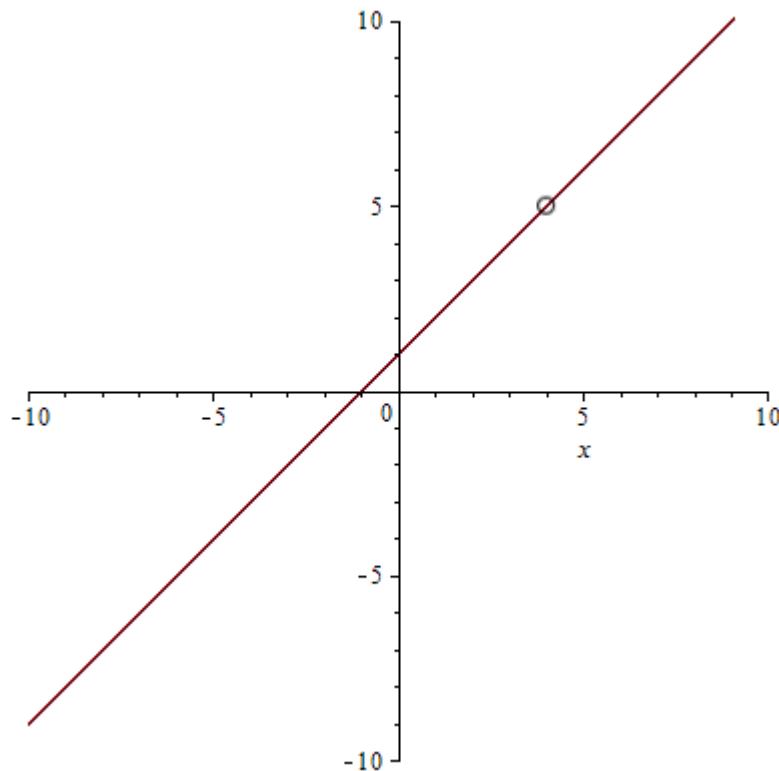
a) ○ $f(x) = \dfrac{(x - 4)(x + 1)}{x - 4}$

b) ○ $f(x) = \dfrac{x - 4}{(x - 4)(x - 1)}$

c) ○ $f(x) = \dfrac{(x+4)(x-1)}{x+4}$

d) ○ $f(x) = \dfrac{(x-4)(x-1)}{x-4}$

e) ○ $f(x) = \dfrac{x-4}{(x-4)(x+1)}$

f) ○ None of the above