

Evaluating Rational Functions

□ Evaluate each function for the given value

$$\textcircled{a} \ f(x) = \frac{x+7}{2x}; \text{ find } f(-4)$$

$$\textcircled{b} \ f(x) = \frac{x+5}{2x-5}; \text{ find } f(4)$$

$$\textcircled{c} \ f(x) = \frac{10x}{-x-5}; \text{ find } f(9)$$

$$\textcircled{d} \ f(x) = \frac{x-2}{x^2+2x-8}; \text{ find } f(3)$$

$$\textcircled{e} \ f(x) = \frac{3}{9x^2-7}; \text{ find } f(0)$$

$$\textcircled{f} \ f(x) = \frac{25x^2-9}{5x^2+7x-6}; \text{ find } f(-1)$$

$$\textcircled{g} \ f(x) = \frac{x-2}{2x-7}; \text{ find } f(7)$$

$$\textcircled{h} \ f(x) = \frac{-3}{2x-8}; \text{ find } f(7)$$

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Answers

Ⓐ $f(x) = \frac{x+7}{2x}$; find $f(-4)$

$$\begin{array}{r} -\frac{3}{8} \\ \hline \end{array}$$

Ⓑ $f(x) = \frac{x+5}{2x-5}$; find $f(4)$

$$\begin{array}{r} 3 \\ \hline \end{array}$$

Ⓒ $f(x) = \frac{10x}{-x-5}$; find $f(9)$

$$\begin{array}{r} -\frac{45}{7} \\ \hline \end{array}$$

Ⓓ $f(x) = \frac{x-2}{x^2+2x-8}$; find $f(3)$

$$\begin{array}{r} \frac{1}{7} \\ \hline \end{array}$$

Ⓔ $f(x) = \frac{3}{9x^2-7}$; find $f(0)$

$$\begin{array}{r} -\frac{3}{7} \\ \hline \end{array}$$

Ⓕ $f(x) = \frac{25x^2-9}{5x^2+7x-6}$; find $f(-1)$

$$\begin{array}{r} -2 \\ \hline \end{array}$$

Ⓖ $f(x) = \frac{x-2}{2x-7}$; find $f(7)$

$$\begin{array}{r} \frac{5}{7} \\ \hline \end{array}$$

Ⓗ $f(x) = \frac{-3}{2x-8}$; find $f(7)$

$$\begin{array}{r} -\frac{1}{2} \\ \hline \end{array}$$