Evaluating Functions

Name _____

Score

EF:16

Evaluate each function.
1)
$$f(x) = \begin{cases} -x^3 & ; x > 3 \\ x^2 - 1 & ; x < -5 \\ -x - 5 & ; -4 \le x \le 2 \end{cases}$$
2) $f(x) = \begin{cases} -x + 7 & ; -1 \le x \le 2 \\ x^2 - x - 3 & ; x \le -2 \\ 11x & ; x \ge 4 \end{cases}$
2) $f(x) = \begin{cases} -x + 7 & ; -1 \le x \le 2 \\ x^2 - x - 3 & ; x \le -2 \\ 11x & ; x \ge 4 \end{cases}$
2) $f(x) = \begin{cases} x^2 - 1 & ; x < -4 \\ x^3 + 2 & ; -2 < x < 1 \\ x - 4 & ; x > 3 \end{cases}$
4) $f(x) = \begin{cases} 2(4 - x) & ; -7 < x \le -1 \\ 6x & ; x < -8 \\ 3 - x^2 & ; x \ge 0 \end{cases}$
4) $f(x) = \begin{cases} 2(4 - x) & ; -7 < x \le -1 \\ 6x & ; x < -8 \\ 3 - x^2 & ; x \ge 0 \end{cases}$
5) $f(x) = \begin{cases} 2x - 1 & ; x > 5 \\ x^2 - 4 & ; x < -2 \\ x^2 + x + 6 & ; -1 \le x \le 3 \end{cases}$
6) $f(x) = \begin{cases} x^3 + x^2 + 1 & ; x \ge 0 \\ 1 - \frac{x}{2} & ; -6 < x < -1 \\ x - 10 & ; x < -8 \end{cases}$
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7) $f(0) = (-1$

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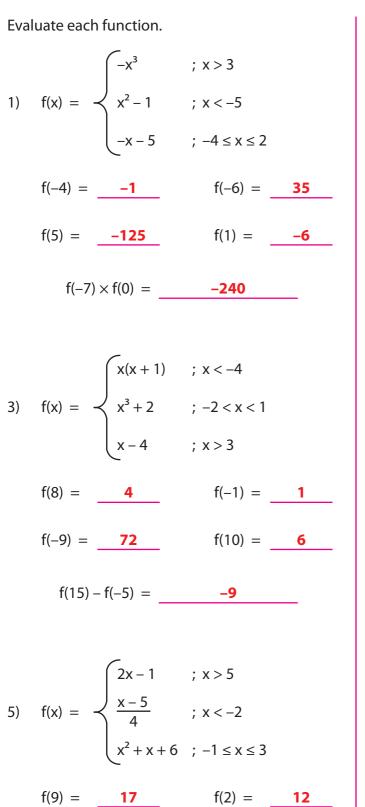
Evaluating Functions

Score

Answer I	key
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2)

4)



 $f(0) = ___6 f(-11) = __4$

2f(-9) + f(-1) = -1

$$f(x) = \begin{cases} -x + 7 & ; -1 \le x \le 2 \\ x^2 - x - 3 & ; x \le -2 \\ 11x & ; x \ge 4 \end{cases}$$

$$f(5) = 55 \qquad f(2) = 5$$

$$f(-3) = 9 \qquad f(-4) = 17$$

$$3f(0) - 3f(-1) = -17$$

$$f(x) = \begin{cases} 2(4 - x) & ; -7 < x \le -1 \\ 6x & ; x < -8 \\ 3 - x^2 & ; x \ge 0 \end{cases}$$

$$f(-13) = -78$$
 $f(4) = -13$
 $f(-6) = 20$ $f(3) = -6$

2f(-1) + 4f(0) = 32

6) $f(x) = \begin{cases} x^3 + x^2 + 1 ; x \ge 0 \\ 1 - \frac{x}{2} ; -6 < x < -1 \\ x - 10 ; x < -8 \end{cases}$ f(1) = 3 f(-4) = 3f(-14) = -24 f(0) = 1 $f(2) \div f(-16) = -\frac{1}{2}$



EF:16