

Evaluating Functions Worksheet

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Date _____

Period _____

Evaluate each function.

1) $k(x) = -x + 1$; Find $k(-10)$

$$k(-10) = -(-10) + 1$$

$$k(-10) = -9$$

3) $g(n) = n^2 + 3$; Find $g(8)$

$$g(8) = 8^2 + 3$$

$$g(8) = 64 + 3$$

$$g(8) = 67$$

5) $h(n) = n^3 + 3n^2$; Find $h(-5)$

$$h(-5) = -5^3 + 3(-5)^2$$

$$h(-5) = -125 + 3(-25)$$

$$= -125 - 75 = -200$$

7) $p(a) = a^3 - 4a$; Find $p(-6)$

$$p(-6) = -6^3 - 4(-6)$$

$$p(-6) = -216 + 24$$

$$p(-6) = -192$$

9) $f(x) = -1 + \frac{1}{4}x$; Find $f(\frac{3}{4})$

$$f(\frac{3}{4}) = -1 + \frac{1}{4}(\frac{3}{4})$$

$$f(\frac{3}{4}) = -1 + \frac{3}{16} = \frac{-16}{16} + \frac{3}{16} = \frac{-13}{16}$$

11) $h(x) = -x^2 - 3$; Find $h(-1)$

$$h(-1) = -(-1)^2 - 3$$

$$h(-1) = -1 - 3$$

$$h(-1) = -4$$

13) $h(t) = t^2 - 4.4$; Find $h(-7.8)$

$$h(-7.8) = (-7.8)^2 - 4.4$$

$$= 60.84 - 4.4$$

$$= 56.44$$

15) $h(a) = -2 - \frac{1}{4}a$; Find $h(-\frac{4}{5})$

$$h(-\frac{4}{5}) = -2 - \frac{1}{4}(-\frac{4}{5})$$

$$h(-\frac{4}{5}) = -2 + \frac{1}{5}$$

$$h(-\frac{4}{5}) = -\frac{10}{5} + \frac{1}{5} = -\frac{9}{5}$$

2) $p(x) = 3x$; Find $p(-6)$

$$p(-6) = 3(-6)$$

$$p(-6) = -18$$

4) $g(x) = x^3 + 5x$; Find $g(5)$

$$g(5) = 5^3 + 5(5)$$

$$g(5) = 125 + 25$$

$$g(5) = 150$$

6) $w(a) = -a^2 + 5a$; Find $w(7)$

$$w(7) = -7^2 + 5(7)$$

$$w(7) = -49 + 35$$

$$w(7) = -14$$

8) $h(n) = \frac{4}{3}n + \frac{8}{5}$; Find $h(-1)$

$$h(-1) = \frac{4}{3}(-1) + \frac{8}{5}$$

$$h(-1) = -\frac{4}{3} + \frac{8}{5}$$

$$h(-1) = -\frac{12}{15} + \frac{24}{15} = \frac{12}{15} = \frac{4}{5}$$

10) $h(n) = n^3 + 6n$; Find $h(4)$

$$h(4) = 4^3 + 6(4)$$

$$h(4) = 64 + 24$$

$$h(4) = 88$$

12) $h(x) = -x^2 - x$; Find $h(10)$

$$h(10) = -10^2 - 10$$

$$h(10) = -100 - 10$$

$$h(10) = -110$$

14) $g(t) = -2.3t^2 + 3.5t$; Find $g(8.6)$

$$g(8.6) = -2.3(8.6)^2 + 3.5(8.6)$$

$$g(8.6) = -17.38 + 30.1$$

$$g(8.6) = 12.72$$

16) $g(x) = 2x^2 + \frac{3}{2}x$; Find $g(\frac{1}{4})$

$$g(\frac{1}{4}) = 2(\frac{1}{4})^2 + \frac{3}{2}(\frac{1}{4})$$

$$g(\frac{1}{4}) = \frac{2}{8} + \frac{3}{8}$$

$$g(\frac{1}{4}) = \frac{5}{8}$$

$$g(\frac{1}{4}) = \frac{5}{8}$$