

Exercise 75

For the following exercises, evaluate the expressions, given functions f , g , and h :

- $f(x) = 3x - 2$
- $g(x) = 5 - x^2$
- $h(x) = -2x^2 + 3x - 1$

$$f\left(\frac{7}{3}\right) - h(-2)$$

Solution

Evaluate the functions at the give values of x .

$$f\left(\frac{7}{3}\right) = 3\left(\frac{7}{3}\right) - 2 = 7 - 2 = 5$$

$$h(-2) = -2(-2)^2 + 3(-2) - 1 = -2(4) - 6 - 1 = -8 - 6 - 1 = -15$$

Therefore,

$$\begin{aligned} f\left(\frac{7}{3}\right) - h(-2) &= 5 - (-15) \\ &= 5 + 15 \\ &= 20. \end{aligned}$$