Hours Worked, h	Gross Pay, P ($)
1	12
2	24
3	36
4	48
5	60

$P(h) = 12h$

$P(20) = 12(20)$

$= 240$

Let's write the function notation

$$P(h) = 12h$$

What is the person's pay after 20 hours?

$$P(20) = 12(20)$$
$$P(20) = \$240$$

Example

Equation

The equation V= -0.08d + 50 represents the volume, V liters, of gas remaining in a vehicle's tank after travelling d kilometers. The tank is not filled until it is empty.

a) Describe the function.
Write the equation in function notation.

F. Notation $V(d) = -0.08d + 50$

b) Determine the value of $V(600)$.
What does this number represent?

$V(600) = -0.08(600) + 50$
$= -48 + 50$
$= 2$

2L left in tank after 600 km.

c) Determine the value of d when $V(d) = 26$.
What does this number represent?

$V(d) = -0.08d + 50$
$26 = -0.08d + 50$
$-50 \quad -50$
$\frac{-24}{-0.08} = \frac{-0.08d}{-0.08}$
$d = 300$

Try This!!!

3. The equation $C = 25n + 1000$ represents the cost, C dollars, for a feast following an Arctic sports competition, where n is the number of people attending.

a) Describe the function.
Write the equation in function notation.

b) Determine the value of $C(100)$.
What does this number represent?

c) Determine the value of n when $C(n) = 5000$.
What does this number represent?

$C(n) = 25n + 1000$

$C(100) = 25(100) + 1000$
$= 2500 + 1000$
$= 3500$

$5000 = 25n + 1000$

$5000 - 1000 = 25n + 1000 - 1000$

$\frac{4000}{25} = \frac{25n}{25}$

$n = 160$

$f(x) = 7x - 1$ $g(x) = 3(x - 1)$

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

a) **f(3)**

$f(3) = 7(3) - 1$

$= 21 - 1$

$= 20$

b) **h(-2)**

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

$= 8 - 1$

$= 7$

$f(x) = 7x - 1$ $g(x) = 3(x - 1)$

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

c) $g(3)$

$= 3(3 - 1)$

$= 3(2)$

$= 6$

d) $h(f(1))$

$f(1) = 7(1) - 1$

$= 7 - 1$

$= 6$

$h(6) = 2(6)^2 - 1$

$= 2(36) - 1$

$= 72 - 1$

$= 71$

$f(x) = 7x - 1$ $g(x) = 3(x - 1)$

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

e) $h(2) - f(3)$

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

$= 7$

$f(3) = 7(3) - 1$

$= 21 - 1$

$= 20$

$7 - 20$

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Homework

- Worksheet
  #1-16
  first 6 are MC