**Warm-up - Answers**

1. Write the **algebraic equation** for this problem.

There were some students on the bus and 12 more got on. Now there are 14 students on the bus. How many students were originally on the bus?

n + 12 = 14

n = 2

1. Write the **equation** to describe the balance.

n + 2 = 6

n = 4

1. Solve the following **equations** and explain your thinking.

(a) *c* – 12 = 8 c = 20
(b) 4 + 5 = *v* + 2 v = 7
(c) 3*n* = 15 n = 5
(d) 85 = *r* ÷ 5 r = 425
(e) 21 + *y* = 40 y = 19
(f) 24 = *p* + 9 p = 15
(g) 25 = 35 – *p* p = 10

**4.** Complete the table.

|  |  |
| --- | --- |
| ***n*** | **3*n*** |
| 3 | 9 |
| 8 | 24 |
| 10 | 30 |
| 12 | 36 |

Think of 3n as 3 × n. Replace the variable with 3, so 3 × 3 = 9.

**5.** Write an expression for the following pattern:

 8, 9, 10, 11, 12, 13,…

You might find it helpful to draw a table first and record the term numbers and term values.

|  |  |
| --- | --- |
| ***TN*** | **TV** |
| 1 | 8 = 1 + 7 |
| 2 | 9 = 2 + 7 |
| 3 | 10 = 3 + 7 |
| 4 | 11 = 4 + 7 |
| 5 | 12 = 5 + 7 |
| 6 | 13 = 6 +7 |

 n + 7