

Health Science Pathway

Algebra Big Idea 3

Q1

1. Write an equivalent way of expressing the following algebraic expression without using the fraction bar (vinculum) $\frac{2n-3}{4}+1$

Solution:

An equivalent form is: $\frac{1}{4}(2n-3)+1$

2. Explain how the expression $3x+2$ is different to the expression $3(x+2)$.

Solution:

In $3x+2$, firstly x was multiplied by 3 and then 2 was added to the result.

In $3(x+2)$, firstly x had 2 added to it and then the result was multiplied by 3.

3. Simplify the expression $\frac{9x+3}{3}+4$

Solution:

$$\frac{9x+3}{3}+4$$

$$= \frac{9x}{3} + \frac{3}{3} + 4$$

$$= 3x + 1 + 4$$

$$= 3x + 5 \text{ (note that we cannot simplify this expression further because } 3x \text{ and } 5 \text{ are not like terms.)}$$