Get Ready for Grade 9 Translating Phrases into Algebraic Expressions Worked Examples and Practice

Example 1: Express in algebraic terms:

a) three more than a number.

b) twice a number.

c) two less than three times a number.

Solution: Let the number be represented by *n*.

a) $n + 3$

b) $2n$

c) $3n - 2$

Example 2: Express in algebraic terms:

a) two hundred dollars plus 10% of the profit.

b) half price plus 15% tax.

c) double the take-off distance for the wet runway less 20% for the headwind.

Solution: **a)** Let the profit be represented by *P*.

$200 + 0.1P$

b) Let the price be represented by *P*.

$$\frac{1}{2}P + 0.15P$$

c) Let the take-off distance be represented by *d*.

$2d - 0.20d$

Practice:

1. Express in algebraic terms:

a) five less than a number.

b) four times a number.

c) 15 more than ten times a number.

2. Express in algebraic terms:

a) Six litres per hour fuel consumption plus 15% for the age of the car.

b) double tuition for an out-of-province student less 10% for early payment.

c) triple the fine for speeding in a construction zone plus $50 for failing to produce proof of insurance.

Answers: 1. a) $n - 5$ b) $4n$ c) $10n + 15$ 2. a) $6 + 0.15f$ b) $2t - 0.10t$ c) $3f + 50$