

Worksheet 2015-8 ED-00001(1)

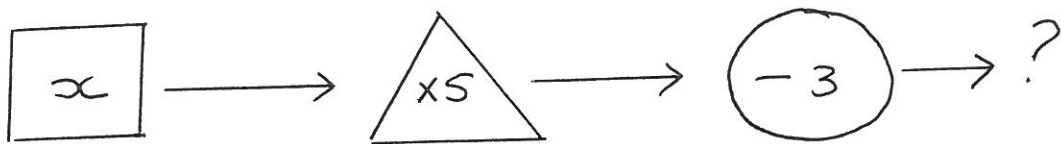
(1) Consider the following algebraic expression: $\frac{5x-1}{8} - 7 + x^2 + 3(2x+1)$

(a) How many terms does the expression consist of? 4

(b) Write down the coefficient of x^2 . +1

(c) Write down the constant term. -7

(2) Draw a flowchart for the following algebraic expression: $5x - 3$



(3) Write the following as mathematical sentences:

(a) The sum of x and y . $x+y$

(b) Double the difference between p and q . $2 \times (p-q)$ or $2 \times (q-p)$

(c) The square of m , increased by two times t . $m^2 + 2 \times t = m^2 \times 2t$

(d) Ansa is k years old now. How old was Ansa 6 years ago? $k-6$

(4) Determine the sum of the following expressions:

(a) $7x^2 - 2x + 8$

$9x^2 + 1x + 11$

$16x^2 - 1x + 19$

(b) $1 + 1mn - 6m^2$

$0 - 3mn + 2m^2$

$1 - 2mn - 4m^2$

(5) Simplify as far as possible:

(a) $2(xy - 3x + 5y) + x(2 - 1y + 3xy)$

$$= \underline{2xy} - \underline{6x} + \underline{10y} + \underline{2x} - \underline{1xy} + \underline{3x^2y}$$
$$= 1xy - 4x + 10y + 3x^2y$$

(b) $\frac{4y^3 - (-2y)(y^4)}{-2y^3}$

$$= \frac{4y^3 + 2y^5}{-2y^3} = \frac{+4y^3}{-2y^3} + \frac{2y^5}{-2y^3}$$
$$= -2 - y^2$$

(c) $6mpr(3m - 3p + 2r - k)$

$$= 18m^2pr - 18mp^2r + 12mpr^2 - 6kmpr$$

(d) $3x^2 + \underline{6y} - \underline{4} + 5x + \underline{7y} + \underline{8}$

$$= 3x^2 + 13y + 4 + 5x$$