

## Worksheet 2015-8ED-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? \_\_\_\_\_

(b) Write down the coefficient of  $x^2$ . \_\_\_\_\_

(c) Write down the constant term. \_\_\_\_\_

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

(3) Write the following as mathematical sentences:

(a) The sum of  $x$  and  $y$ . \_\_\_\_\_

(b) Double the difference between  $p$  and  $q$ . \_\_\_\_\_

(c) The square of  $m$ , increased by two times  $t$ . \_\_\_\_\_

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

(4) Determine the sum of the following expressions:

(a) 
$$\begin{array}{r} 7x^2 - 2x + 8 \\ 9x^2 + x + 11 \\ \hline \end{array}$$

(b) 
$$\begin{array}{r} 1 + mn - 6m^2 \\ - 3mn + 2m^2 \\ \hline \end{array}$$

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(5) Simplify as far as possible:

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

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

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

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

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