

Tutorial 1Question 1

Solve the operations by using BODMAS rule.

a) $16 \div (2 \times 4 \div 2)$

$= 16 \div (8 \div 2)$

$= 16 \div 4 \rightarrow 4 \overline{)16}$
 $= 4$

b) $(18-6) \div (6-3)$

$= 12 \div 3$

$= 4$

$\begin{array}{r} 4 \\ 3 \overline{)12} \\ \underline{12} \\ 0 \end{array}$

c) $10 \div (4 \div 2 \div 2)$

$= 10 \div 1$

$= 10$

$\begin{array}{r} 10 \\ 1 \overline{)10} \\ \underline{10} \\ 0 \end{array}$

d) $5 \times (4 - 8 \div 1 \times 9) + 2 + 8$

$= 5 \times (-7 + 3) + 10$

$= -37 + 15 + 10$

$= -37 + 25$

e) $(9 \times 84 \div 7 - 3 - 2) \times 7 + 3$

$= 9 \times 12 - 3 - 2 \times 7 + 3$

$= 103 \times 7 + 3$

$= 724$

f) $64 \div 2 \times (1 + 7 \times 7) + 1 + 9$

$= 32 \times 50 + 10$

$= 1610$

Question 2

Solve the operations on polynomials.

a) $(-5x^2 - x + 4) + (-3x^2 - 5x + 4)$

$= -5x^2 - x + 4 - 3x^2 - 5x + 4$

$= -5x^2 - 3x^2 - x - 5x + 4 + 4$

$= -8x^2 - 6x + 8$

b) $-4x^2y(x^2 + 7xy - 6y^3)$

$= -4x^4y - 28x^3y^2 + 24x^2y^4$

c) $(x-2)(x^2-x+3)$

$= x^3 - x^2 - 3x - 2x^2 + 2x - 6$

$= x^3 - x^2 - 2x^2 + 3x + 2x - 6$

$= x^3 - 3x^2 + 5x - 6$

d) $(4p + 3p^2 - 1) \div (p+4)$

$$\begin{array}{r} 3p-8 \\ p+4 \overline{)4p+3p^2-1} \\ \underline{4p+12p} \\ -8p-1 \\ \underline{-8p-32} \\ 31 \end{array}$$