

$$1) i. \quad 6 \times 3 = 18 \quad \text{and} \quad 6x \times 3x = 18x^2$$

$$2) i. \quad 4x \times 6x \times 2 = 48x^2$$

$$3) i. \quad 3x^3 \times 5x^4 = 3 \times 5 \times x^3 \times x^4 \\ = 15x^{3+4} \\ = 15x^7 \\ = 15x^7$$

$$4) i. \quad (a+b) \times ab = a \times ab + b \times ab \\ = a^{1+1}b + ab^{1+1} \\ = a^2b + ab^2.$$

$$5) i. \quad (-x+y+z) \times -2x = -x \times -2x + y \times -2x - 2x \\ = 2x^{1+1} - 2xy + 2xz \\ = 2x^2 - 2xy + 2xz$$

$$6) i. \quad (3a+4b-5c) \times 3a = 3a \times 3a + 4b \times 3a - 5c \times 3a \\ = 9a^{1+1} + 12ab - 15ac \\ = 9a^2 + 12ab - 15ac$$

$$7) i. \quad (x+2) \times (x+10) = x \times (x+10) + 2 \times (x+10) \\ = x^2 + 10x + 2x + 20 \\ = x^2 + 12x + 20$$

$$8) i. \quad = -15x a^{1+2} \times b^{1+2} \times c^{1+1} \\ = -15x a^3 \times b^3 \times c^2 \\ = -15a^3 b^3 c^3$$

$$\begin{aligned}
 9) i. \quad & xy \times xy + xy \times ab - ab \times xy - ab \times ab \\
 & = x^2y^2 + abxy - abxy - a^2b^2 \\
 & = x^2y^2 - a^2b^2
 \end{aligned}$$

19 - (D)

$$\begin{aligned}
 1) i. \quad & 3a/a = (3 \times a)/a \\
 & = 3
 \end{aligned}$$

$$\begin{aligned}
 2) i. \quad & = (2 \times x^5) / x^2 \\
 & = 2 \times x^{5-2} \\
 & = 2 \times x^3
 \end{aligned}$$

$$\begin{aligned}
 3) i. \quad & -3m/4 \div 2m = -3m/4 \times 1/2m \\
 & = -(3 \times m) / (4 \times 2 \times m) \\
 & = -3/8
 \end{aligned}$$