

Multiplying and Dividing Monomials

1. Multiply

(a) $(4p^4q^2).(2p^4q)$

(b) $(-4m^2).(3mn^3)$

(c) $(-2a^5).(-5b^4)$

(d) $(5u^5v^3).(6u^7v^2)$

(e) $(2st).(-6s^3t^{-5})$

(f) $(3x^3y)^3.(x^{-4}y^{-2})$

(g) $(2g^5h).(2gh^{-4})$

(h) $(3r^{-1}s).(4pq)$

(i) $(6x).(4y)$

2. Divide

(a) $\frac{6u^4v^{-3}}{3u^2v^{-6}}$

(b) $\frac{24y^5z^3}{4y^2z^{-6}}$

(c) $\frac{6x^8}{x^2}$

(d) $\frac{32z}{8}$

(e) $\frac{60x^{19}y^7}{12x^7y^6}$

(f) $\frac{4m^6}{2m^2}$

(g) $\frac{m^2n^4}{mn^2}$

(h) $\frac{-2r^4s^3t^3}{r^3s^3t^2}$

(i) $\frac{-14c^5d^3c^8}{-7cdf^2}$

Multiplying and Dividing Monomials

Answers

1. Multiply

(a) $(4p^4q^2).(2p^4q)$

$$8p^8q^3$$

(b) $(-4m^2).(3mn^3)$

$$-12m^3n^3$$

(c) $(-2a^5).(-5b^4)$

$$10a^5b^4$$

(d) $(5u^5v^3).(6u^7v^2)$

$$30u^{12}v^5$$

(e) $(2st).(-6s^3t^{-5})$

$$-12s^4t^{-4}$$

(f) $(3x^3y)^3.(x^{-4}y^{-2})$

$$27x^5y$$

(g) $(2g^5h).(2gh^{-4})$

$$4g^6h^{-3}$$

(h) $(3r^{-1}s).(4pq)$

$$12pqr^{-1}s$$

(i) $(6x).(4y)$

$$24xy$$

2. Divide

(a) $\frac{6u^4v^{-3}}{3u^2v^{-6}}$

$$2u^2v^3$$

(b) $\frac{24y^5z^3}{4y^2z^{-6}}$

$$6y^3z^9$$

(c) $\frac{6x^8}{x^2}$

$$6x^6$$

(d) $\frac{32z}{8}$

$$4z$$

(e) $\frac{60x^{19}y^7}{12x^7y^6}$

$$x^{12}y$$

(f) $\frac{4m^6}{2m^2}$

$$2m^4$$

(g) $\frac{m^2n^4}{mn^2}$

$$mn^2$$

(h) $\frac{-2r^4s^3t^3}{r^3s^3t^2}$

$$-2rst$$

(i) $\frac{-14c^5d^3c^8}{-7cdf^2}$

$$2c^4d^2f^6$$