

**RD SHARMA**  
**Solutions**  
**Class 8 Maths**  
**Chapter 8**  
**Ex 8.2**

**Divide: Question 1** $6x^3y^2z^2$  by  $3x^2yz$ **Soln:**

$$\frac{6x^3y^2z^2}{3x^2yz}$$

$$= \frac{6 \times x \times x \times x \times y \times y \times z \times z}{3 \times x \times x \times y \times z}$$

$$= 2x^{(3-2)}y^{(2-1)}z^{(2-1)}$$

$$= 2xyz$$

**Question 2** $15m^2n^3$  by  $5m^2n^2$ **Soln:**

$$\frac{15m^2n^3}{5m^2n^2}$$

$$= \frac{15 \times n \times n \times n \times m \times m}{5 \times m \times m \times n \times n}$$

$$= 3m^{(2-2)}n^{(3-2)}$$

$$= 3m^0n^1$$

$$= 3n$$

**Question 3** $24a^3b^3$  by  $-8ab$ **Soln:**

$$\frac{24a^3b^3}{-8ab}$$

$$= \frac{24 \times a \times a \times a \times b \times b \times b}{-8 \times a \times b}$$

$$= -3a^{(3-1)}b^{(3-1)}$$

$$= -3a^2b^2$$

**Question 4** $-21abc^2$  by  $7abc$ **Soln:**

$$\frac{-21abc^2}{7abc}$$

$$= \frac{-21 \times a \times b \times c \times c}{7 \times a \times b \times c}$$

$$= -3a^{(1-1)}b^{(1-1)}c^{(2-1)}$$

$$= -3a^0b^0c^1$$

$$= -3c$$

**Question 5**

$$72xyz^2 \text{ by } -9xz$$

**Soln:**

$$\frac{72xyz^2}{-9xz}$$

$$= \frac{72 \times x \times y \times z \times z}{-9 \times x \times z}$$

$$= -8x^{(1-1)}y z^{(2-1)}$$

$$= -8yz$$

**Question 6**

$$-72a^4b^5c^8 \text{ by } -9a^2b^2c^3$$

**Soln:**

$$\frac{-72a^4b^5c^8}{-9a^2b^2c^3}$$

$$= \frac{-72 \times a \times a \times a \times a \times b \times b \times b \times b \times b \times c \times c \times c \times c \times c \times c}{-9 \times a \times a \times b \times b \times c \times c \times c}$$

$$= 8a^{(4-2)}b^{(5-2)}c^{(8-3)}$$

$$= 8a^2b^3c^5$$

**Simplify :****Question 7**

$$\frac{16m^3y^2}{4m^2y}$$

**Soln:**

$$\frac{16m^3y^2}{4m^2y}$$

$$= \frac{16 \times m \times m \times m \times y \times y}{4 \times m \times m \times y}$$

$$= 4m^{(3-2)}y^{(2-1)}$$

$$= 4my$$

**Question 8**

$$\frac{32m^2n^3p^2}{4mnp}$$

**Soln:**

$$\frac{32m^2n^3p^2}{4mnp}$$

$$= \frac{32 \times m \times m \times n \times n \times n \times p \times p}{4 \times m \times n \times p}$$

$$= 8m^{(2-1)}n^{(3-1)}p^{(2-1)}$$

$$= 8mn^2p$$