

INDICESEXERCISE

1. $5m^4 \times 3m^2$

2. $3q^3 \times 4q^4$

3. $20y^5 \div 4y$

4. $6h^6 \div 2h^2$

5. $(2p^2)^4$

6. $(2q^5)^3$

7. 5^1

8. 3^0

9. 4^{-3}

10. $25^{\frac{1}{2}}$

11. $8^{\frac{5}{3}}$

12. $16^{-\frac{1}{4}}$

13. $27^{-\frac{2}{3}}$

14. $3p^4q^2r \times 2pq^5r^2$

15. $8m^4n \div (2m^2n^3)$

Simplify

Write as integers or fractions

Simplify

INDICES

EXERCISE

1. $5m^4 \times 3m^2 = 15m^6$

2. $3q^3 \times 4q^4 = 12q^7$

3. $20y^5 \div 4y = 5y^4$

4. $6h^6 \div 2h^2 = 3h^4$

5. $(2p^2)^4 = 16p^8$

6. $(2p^5)^3 = 8p^{15}$

7. $5^1 = 5$

8. $3^0 = 1$

9. $4^{-3} = \frac{1}{4^3} = \frac{1}{64}$

10. $25^{\frac{1}{2}} = \sqrt{25} = 5$

11. $8^{\frac{5}{3}} = (\sqrt[3]{8})^5$
 $= 2^5$
 $= 32$

12. $16^{-\frac{1}{4}} = \frac{1}{16^{\frac{1}{4}}}$
 $= \frac{1}{\sqrt[4]{16}}$
 $= \frac{1}{2}$

13. $27^{-\frac{2}{3}} = \frac{1}{27^{\frac{2}{3}}}$
 $= \frac{1}{(\sqrt[3]{27})^2}$

$$= \frac{1}{3^2}$$

$$= \frac{1}{9}$$

14. $3p^4q^2r \times 2pq^5r^2$
 $= 6p^5q^7r^3$

15. $8m^4n \div 2m^2n^3$
 $= \frac{4m^2}{n^2}$

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