

Fractional indices (advanced)

Maths

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Fractional indices (advanced)

1. Match up the equivalent cards.

$$25^{\frac{3}{2}}$$

$$(\sqrt[3]{125})^2$$

$$9$$

$$27^{\frac{2}{3}}$$

$$(\sqrt{16})^3$$

$$125$$

$$16^{\frac{3}{2}}$$

$$(\sqrt{25})^3$$

$$512$$

$$64^{\frac{3}{2}}$$

$$(\sqrt{64})^3$$

$$25$$

$$125^{\frac{2}{3}}$$

$$(\sqrt[3]{27})^2$$

$$64$$

2. Evaluate.

a) $64^{\frac{2}{3}}$

c) $16^{\frac{3}{4}}$

b) $9^{\frac{3}{2}}$

d) $243^{\frac{2}{5}}$



Fractional indices (advanced)

3. Work out the calculations.

a) $9^{\frac{1}{2}} + 64^{\frac{2}{3}}$

c) $125^{\frac{2}{3}} + 4^{-1}$

b) $27^{\frac{1}{3}} + 16^{\frac{3}{2}}$

d) $243^{\frac{2}{5}}(27^{\frac{1}{3}} + 2^{-1})$

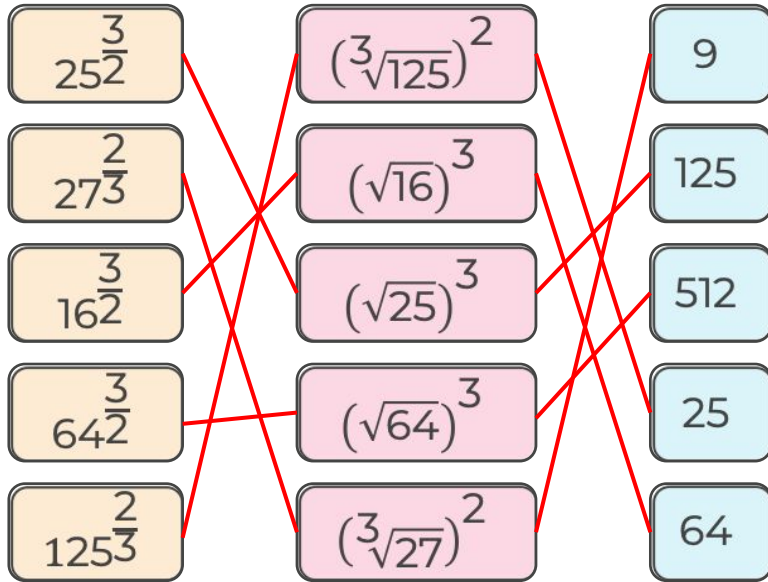


Answers



Fractional indices (advanced)

1. Match up the equivalent cards.



2. Evaluate.

a) $64^{\frac{2}{3}}$

16

b) $9^{\frac{3}{2}}$

27

c) $16^{\frac{3}{4}}$

8

d) $243^{\frac{2}{5}}$

9



Fractional indices (advanced)

3. Work out the calculations.

a) $9^{\frac{1}{2}} + 64^{\frac{2}{3}}$

19

c) $125^{\frac{2}{3}} + 4^{-1}$

25.25

b) $27^{\frac{1}{3}} + 16^{\frac{3}{2}}$

67

d) $243^{\frac{2}{5}}(27^{\frac{1}{3}} + 2^{-1})$

31.5

