Negative and fractional indices (mixed skills)

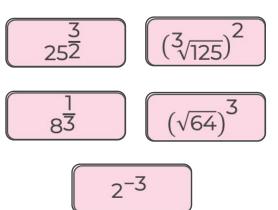
Maths





Negative and fractional indices (mixed skills)

1. Arrange the cards in ascending order.



2. Work out the following.

a)
$$\left(\frac{2}{3}\right)^{-2} \div \left(\frac{27}{8}\right)^{\frac{2}{3}}$$
 d) $\left(\frac{1}{2}\right)^{3} \div \left(\frac{125}{8}\right)^{\frac{2}{3}}$

b)
$$\left(\frac{16}{9}\right)^{\frac{1}{2}} \times \left(\frac{1}{4}\right)^{\frac{3}{2}}$$
 e) $\left(\frac{16}{9}\right)^{\frac{3}{2}} \div \left(\frac{9}{4}\right)^{\frac{1}{2}}$

c)
$$\left(\frac{1}{27}\right)^{\frac{1}{3}} \div \left(\frac{25}{4}\right)^{\frac{1}{2}}$$
 f) $\left(\frac{64}{27}\right)^{\frac{1}{3}} \times \left(\frac{9}{36}\right)^{\frac{1}{2}}$

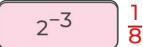


Answers



Negative and fractional indices (mixed skills)

1. Arrange the cards in ascending order.



$$\frac{1}{8\overline{3}}$$
 2

$$\left(\frac{3}{\sqrt{125}}\right)^2$$
 25

$$\frac{3}{252}$$
 125

$$(\sqrt{64})^3$$
 512

2. Work out the following.

a)
$$\left(\frac{2}{3}\right)^{-2} \div \left(\frac{27}{8}\right)^{\frac{2}{3}}$$
 d) $\left(\frac{1}{2}\right)^{3} \div \left(\frac{125}{8}\right)^{\frac{2}{3}}$ 1 $\frac{4}{200} = \frac{1}{50}$

d)
$$\left(\frac{1}{2}\right)^3 \div \left(\frac{125}{8}\right)^{\frac{2}{3}}$$

b)
$$\left(\frac{16}{9}\right)^{\frac{1}{2}} \times \left(\frac{1}{4}\right)^{\frac{3}{2}}$$
 e) $\left(\frac{16}{9}\right)^{\frac{3}{2}} \div \left(\frac{9}{4}\right)^{\frac{1}{2}}$

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c)
$$\left(\frac{1}{27}\right)^{\frac{1}{3}} \div \left(\frac{25}{4}\right)^{\frac{1}{2}}$$

c)
$$\left(\frac{1}{27}\right)^{\frac{1}{3}} \div \left(\frac{25}{4}\right)^{\frac{1}{2}} = f \cdot \left(\frac{64}{27}\right)^{\frac{1}{3}} \times \left(\frac{9}{36}\right)^{\frac{1}{2}} = \frac{2}{3}$$

