

إجابات تدريبات الدرس

قوانين الأسس (2)

تدريب (٥ - ٨)

$$(ب) \sqrt{\frac{343}{1331}}$$

$$(د) \sqrt{\frac{169}{196}}$$

$$(أ) \sqrt{18} \times \sqrt{8}$$

$$(ج) \sqrt{25} \times \sqrt{40}$$

الحل :

$$12 = \sqrt{144} = \sqrt{(144)} = \sqrt{(18 \times 8)} = \sqrt{(18)} \times \sqrt{(8)} = \sqrt{18} \times \sqrt{8} \quad (أ)$$

☆ حل آخر :

$$12 = \sqrt{144} = \sqrt{18 \times 8} = \sqrt{18} \times \sqrt{8}$$

$$\frac{7}{11} = \sqrt[3]{\left(\frac{7}{11}\right)^3} = \sqrt{\left(\frac{7}{11}\right)^2} = \sqrt{\frac{49}{121}} = \sqrt{\frac{343}{1331}} \quad (ب)$$

$$10 = \sqrt[3]{1000} = \sqrt[3]{(25 \times 40)} = \sqrt[3]{25} \times \sqrt[3]{40} = \sqrt{25} \times \sqrt{40} \quad (ج)$$

☆ حل آخر :

$$10 = \sqrt[3]{1000} = \sqrt[3]{25 \times 40} = \sqrt{25} \times \sqrt{40}$$

$$\frac{13}{14} = \frac{\sqrt{169}}{\sqrt{196}} = \sqrt{\frac{169}{196}} \quad (د)$$

تدريب (٥ - ٩)

جد قيمة كل مما يأتي بأبسط صورة :

(ب) $\sqrt[2]{\frac{24}{375}}$

(أ) $\sqrt[5]{\frac{32}{243}} \times \sqrt[2]{\frac{729}{64}}$

(ج) $\left(\left(\frac{125}{45} \right)^{\frac{1}{3}} \right)^{\frac{4}{5}} : \sqrt[2]{64} \times \sqrt[3]{64}$

الحل :

(أ) $\sqrt[5]{\frac{2^5}{3^5}} \times \sqrt[2]{\frac{3^6}{2^6}} = \sqrt[5]{\frac{32}{243}} \times \sqrt[2]{\frac{729}{64}}$

$\left(\frac{2}{3} \right)^{\frac{5}{5}} \times \left(\frac{3^6}{2^6} \right)^{\frac{1}{2}} =$

$\frac{2}{3} = \frac{18}{12} = \frac{2}{3} \times \frac{9}{4} =$

لفهم درس الأسس النسبية (2) ، شاهد الفيديو

(ب) $\sqrt[2]{\frac{24}{375}} = \sqrt[2]{\frac{2 \times 2 \times 2}{5 \times 5 \times 5}} = \sqrt[2]{\frac{2 \times 2 \times 2 \times 3}{5 \times 5 \times 5 \times 3}} = \sqrt[2]{\frac{24}{375}}$

$\frac{2}{5} = \sqrt[2]{\left(\frac{2}{5} \right)^2} =$

(ج) $\left(\left(\frac{125}{45} \right)^{\frac{1}{3}} \right)^{\frac{4}{5}} : \sqrt[2]{64} \times \sqrt[3]{64} = \left(\frac{5 \times 5 \times 5}{3 \times 3 \times 3} \right)^{\frac{1}{3}} : \sqrt[2]{64} \times \sqrt[3]{64} =$

$\frac{5}{3} = \frac{8}{8} \left(\frac{5}{3} \right) = \frac{4}{8} \times 2 \left(\frac{5}{3} \right) = \frac{4}{8} \left(\left(\frac{5}{3} \right)^2 \right) = \left(\left(\frac{5}{3} \right)^{\frac{1}{2}} \right)^{\frac{4}{2}} =$

(د) $32 = 8 \times 4 = \sqrt[2]{64} \times \sqrt[2]{64}$