WJEC June 2018 Q4

Simplify each of the following.

(a) $5x^{\frac{3}{5}} \times 6x^{\frac{4}{5}}$ [1]

(b) $(6x^{\frac{4}{5}} \times 6x^{\frac{4}{5}})^{\frac{1}{2}}$ [1]

(c) $\dfrac{6x^{\frac{2}{7}} + 3x^{\frac{4}{7}} + 6x^{\frac{1}{7}}}{6x^{\frac{1}{7}}}$ [2]

WJEC June 2018 Q3a

Do not use a calculator to answer this question.
All working must be shown.

(a)   Find the value of $(4^{\frac{1}{4}})^{-12}$.

You must show all your working. [2]

WJEC June 2017 Q17a

Do not use a calculator to answer this question.
All working must be shown.

(a)   Find the value of $\left(15^{\frac{1}{3}}\right)^{6}$.

Show all your working. [1]

WJEC June 2017 Q16

16. Showing all your working, simplify each of the following.

(a) $\dfrac{6x^{\frac{13}{8}} \times 10x^{\frac{3}{8}}}{x^{\frac{1}{5}}}$ [2]

(b) $\dfrac{18x^{\frac{2}{5}} + 9x^{\frac{4}{5}}}{9x^{\frac{1}{5}}}$ [2]

WJEC June 2016 Q6b

(b)   Showing all your working, simplify each of the following.

(i) $\dfrac{x^{-\frac{2}{5}} \times x^{\frac{17}{5}}}{x^{\frac{1}{2}}}$ [2]

(ii) $\dfrac{8x^{\frac{1}{9}} + x^{\frac{2}{9}}}{x^{\frac{2}{9}}}$ [2]

WJEC June 2013 Q14

(a)   Showing all your working, find the value of $(50^{\frac{1}{2}})^4$.

....   [1]

(b)   Showing all your working, simplify each of the following.

(i) $\dfrac{3x^{-\frac{5}{4}} \times 4x^{\frac{7}{4}}}{x^{\frac{3}{2}}}$

....   [2]

(ii) $\dfrac{12x^{\frac{1}{6}} + 4x^{\frac{2}{6}}}{4x^{\frac{1}{6}}}$

....   [2]

WJEC June 2015 Q16

Without using a calculator, find the value of $(12^{\frac{1}{2}})^4$.
Show all your working.   [1]

WJEC June 2015 Q17

Showing all your working, simplify each of the following.

(a) $\dfrac{5x^{\frac{5}{8}} \times 4x^{\frac{3}{8}}}{x^{\frac{2}{3}}}$ [2]

(b) $\dfrac{6x^{\frac{1}{4}} + 3x^{\frac{3}{4}}}{3x^{\frac{1}{4}}}$ [2]

WJEC June 2014 Q6b

(b)   Showing all your working, simplify each of the following.

(i) $\dfrac{3x^{-\frac{7}{4}} \times 2x^{\frac{17}{4}}}{x^{\frac{3}{2}}}$ [2]

(ii) $\dfrac{28x^{\frac{1}{7}} + 7x^{\frac{2}{7}}}{7x^{\frac{1}{7}}}$ [2]

WJEC June 2012 Q1

(a)   Showing all your working, find the value of each of the following.

(i) $64^{-\frac{1}{2}} \times 36^{\frac{3}{2}}$

(ii) $\left(100^{\frac{1}{2}}\right)^4$

Showing all your working, simplify each of the following.

(i) $\dfrac{5x^{-\frac{5}{4}} \times 4x^{\frac{13}{4}}}{x^{\frac{3}{2}}}$

(ii) $\dfrac{18x^{\frac{1}{5}} + 6x^{\frac{2}{5}}}{6x^{\frac{1}{5}}}$

WJEC June 2011 Q11

11. (a)   Showing all your working, find the value of **each** of the following.

(i) $36^{-\frac{1}{2}} \times 125^{\frac{1}{3}}$

[2]

(ii) $\left(49^{\frac{1}{2}}\right)^{-2}$

[1]

(b)   Simplify each of the following.

(i) $\dfrac{6x^{\frac{3}{2}} \times 5x^{\frac{1}{4}}}{\left(x^5\right)^{\frac{1}{4}}}$

[2]

(ii) $\dfrac{3y^{\frac{1}{5}} + 2y^{\frac{6}{5}}}{5y^{\frac{1}{5}}}$

[2]