

Q2 HW5 - All work on looseleaf.

Simplify.

1) $4v \cdot 2v^{\frac{4}{3}}$

2) $a^{\frac{7}{4}} a^{\frac{3}{2}} \cdot a$

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

4) $\left(n^{\frac{1}{2}}\right)^{\frac{3}{4}}$

Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.

5) $\frac{2p^{\frac{1}{2}}}{3p^4}$

6) $\frac{4k}{3k^{\frac{1}{3}}}$

7) $\frac{n^{\frac{5}{3}} n^{-\frac{2}{3}}}{n^{\frac{1}{3}}}$

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

Write each expression in radical form.

9) $x^{\frac{5}{2}}$

10) $(6n)^{\frac{5}{3}}$

Simplify.

11) $\sqrt{80}$

12) $\sqrt{125}$

13) $\sqrt{20}$

14) $\sqrt{8}$

15) $\sqrt{18}$

16) $\sqrt{32}$

17) $\sqrt{36x^2}$

18) $\sqrt{12r}$

19) $\sqrt{12m^2}$

20) $\sqrt[4]{324a^2}$

Write each expression in exponential form (fractional exponents).

21) $(\sqrt{6r})^5$

22) $(\sqrt{5m})^3$

Simplify.

23) $5\sqrt{75}$

24) $4\sqrt{50}$