

Extra practice around the room

Date _____ Block _____

Simplify.

1) $(r^4)^{\frac{3}{2}}$

2) $(64n^2)^{\frac{1}{2}}$

3) $(m^6)^{\frac{1}{2}}$

4) $(625x^4)^{\frac{3}{4}}$

5) $(1000n^9)^{\frac{4}{3}}$

Write each expression in radical form.

6) $(3p)^{\frac{5}{4}}$

7) $(5b)^{\frac{3}{2}}$

Write each expression in exponential form.

8) $(\sqrt[3]{7m})^4$

9) $\frac{1}{\sqrt{7x}}$

10) $(\sqrt[4]{5m})^3$

Simplify. Your answer should contain only positive exponents.

11) $\frac{2^4 \cdot 2^0}{(2^3)^2 \cdot 2^3}$

12) $\frac{2^2 \cdot 2^3}{2^{-1}}$

13) $\left(\frac{(2^0)^2 \cdot 2^0}{2^3}\right)^3$

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

$$14) \frac{a^{-1}b^{-2}}{\left(\frac{3}{a^4}\right)^{-\frac{2}{3}} \cdot \left(\frac{3}{a^2} \frac{4}{b^3}\right)^{\frac{2}{3}}}$$

$$15) \frac{\left(x^0 y^{\frac{3}{2}}\right)^{-1}}{x^{-\frac{3}{4}} \cdot x^2 y^{-\frac{5}{4}}}$$

Answers to Extra practice around the room (ID: 1)

1) r^6

5) $10000n^{12}$

9) $(7x)^{-\frac{1}{2}}$

13) $\frac{1}{2^9}$

2) $8n$

6) $(\sqrt[4]{3p})^5$

10) $(5m)^{\frac{3}{4}}$

14) $\frac{a^{\frac{1}{2}}b^{\frac{1}{9}}}{a^2b^3}$

3) m^3

7) $(\sqrt{5b})^3$

11) $\frac{1}{2^5}$

15) $\frac{y^{\frac{3}{4}}x^{\frac{3}{4}}}{yx^2}$

4) $125x^3$

8) $(7m)^{\frac{4}{3}}$

12) 2^6