Math worksheet on *'Radicals - Convert Square Root, Values and Variables, from Exponents - Negative (Level 1)'*. Part of a broader unit on *'Radicals - Simplifying Intro'*

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1 Convert the fractional exponent to a radical

$5^{-\frac{1}{2}} \cdot p^{-\frac{3}{2}}$

a $\frac{1}{\sqrt{5p^3}}$ **b** $\frac{1}{p^2\sqrt{5p}}$ **c** $\frac{1}{p\sqrt{p}}$

d $\frac{1}{p\sqrt{7p^3}}$ **e** $\frac{1}{3p\sqrt{7p}}$ **f** $\frac{1}{3p^3\sqrt{5p}}$

2 Convert the fractional exponent to a radical

$7^{-\frac{1}{2}} \cdot c^{-\frac{1}{2}}$

a $\frac{1}{\sqrt{6c}}$ **b** $\frac{1}{\sqrt{9c^3}}$ **c** $\frac{1}{\sqrt{4c}}$

d $\frac{1}{\sqrt{10c}}$ **e** $\frac{1}{\sqrt{7c}}$ **f** $\frac{1}{4\sqrt{10c}}$

3 Convert the fractional exponent to a radical

$7^{-\frac{1}{2}} \cdot b^{-\frac{1}{2}}$

a $\frac{1}{2\sqrt{9b}}$ **b** $\frac{1}{\sqrt{7b^3}}$ **c** $\frac{1}{\sqrt{9b}}$

d $\frac{1}{\sqrt{7b}}$ **e** $\frac{1}{3\sqrt{5b}}$ **f** $\frac{1}{4\sqrt{7b}}$

4 Convert the fractional exponent to a radical

$7^{-\frac{1}{2}} \cdot n^{-\frac{1}{2}}$

a $\frac{1}{\sqrt{5n^2}}$ **b** $\frac{1}{\sqrt{8n^2}}$ **c** $\frac{1}{\sqrt{7n}}$

d $\frac{1}{3\sqrt{7n}}$ **e** $\frac{1}{2\sqrt{10n}}$ **f** $\frac{1}{4\sqrt{5n}}$

5 Convert the fractional exponent to a radical

$2^{-\frac{1}{2}} \cdot y^{-\frac{1}{2}}$

a $\frac{1}{3\sqrt{y}}$ **b** $\frac{1}{\sqrt{y^2}}$ **c** $\frac{1}{\sqrt{5y}}$

d $\frac{1}{4\sqrt{4y^3}}$ **e** $\frac{1}{\sqrt{y}}$ **f** $\frac{1}{\sqrt{2y}}$

6 Convert the fractional exponent to a radical

$5^{-\frac{1}{2}} \cdot y^{-\frac{3}{2}}$

a $\frac{1}{y\sqrt{3y}}$ **b** $\frac{1}{y^3\sqrt{4y}}$ **c** $\frac{1}{y^3\sqrt{2y}}$

d $\frac{1}{3y\sqrt{5y}}$ **e** $\frac{1}{\sqrt{5y^3}}$ **f** $\frac{1}{2y\sqrt{4y}}$

7 Convert the fractional exponent to a radical

$3^{-\frac{1}{2}} \cdot d^{-\frac{3}{2}}$

a $\frac{1}{\sqrt{3d^3}}$ **b** $\frac{1}{3d\sqrt{5d}}$ **c** $\frac{1}{d\sqrt{2d}}$

d $\frac{1}{4d\sqrt{2d}}$ **e** $\frac{1}{d\sqrt{2d^3}}$ **f** $\frac{1}{4d\sqrt{d}}$