Math worksheet on *'Exponents - Negative Fractional Exponents with Integer Base - Explanation to Radical (Level 1)'*. Part of a broader unit on *'Exponents - Negative Bases and Exponents - Practice'*

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1 Given the hint, what is the fractional exponent the same as?

$$16^{(\frac{-1}{2})} \cdot 16^{(\frac{-1}{2})} = \frac{1}{16}$$

$$16^{(\frac{-1}{2})} = ?$$

a $\frac{1}{4\sqrt{16}}$ **b** $\frac{1}{1}$ **c** $\frac{1}{\sqrt{16}^2}$ **d** $\frac{1}{\sqrt{4}}$ **e** $\frac{1}{5\sqrt{16}}$ **f** $\frac{1}{\sqrt{16}}$

2 Given the hint, what is the fractional exponent the same as?

$$4^{(\frac{-1}{2})} \cdot 4^{(\frac{-1}{2})} = \frac{1}{4}$$

$$4^{(\frac{-1}{2})} = ?$$

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

3 Given the hint, what is the fractional exponent the same as?

$$36^{(\frac{-1}{2})} \cdot 36^{(\frac{-1}{2})} = \frac{1}{36}$$

$$36^{(\frac{-1}{2})} = ?$$

a $\frac{1}{\sqrt{36}}$ **b** $\frac{1}{3\sqrt{36}}$ **c** $\frac{1}{1}$ **d** $\frac{1}{2\sqrt{36}}$ **e** $\frac{1}{\sqrt{36}^2}$ **f** $\sqrt{36}$

4 Given the hint, what is the fractional exponent the same as?

$$9^{(\frac{-1}{2})} \cdot 9^{(\frac{-1}{2})} = \frac{1}{9}$$

$$9^{(\frac{-1}{2})} = ?$$

a $\frac{1}{4\sqrt{9}}$ **b** $\frac{1}{5\sqrt{9}}$ **c** $\frac{1}{1}$ **d** $\frac{1}{\sqrt{4}}$ **e** $\frac{1}{\sqrt{2}}$ **f** $\frac{1}{\sqrt{9}}$

5 Given the hint, what is the fractional exponent the same as?

$$25^{(\frac{-1}{2})} \cdot 25^{(\frac{-1}{2})} = \frac{1}{25}$$

$$25^{(\frac{-1}{2})} = ?$$

a $\frac{1}{3\sqrt{25}}$ **b** $\frac{1}{\sqrt{25}}$ **c** $\frac{1}{2\sqrt{25}}$ **d** $\frac{1}{\sqrt{2}}$ **e** $\frac{1}{\sqrt{25}^2}$ **f** $\frac{1}{1}$