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Math worksheet on *'Exponents - Fractional Exponent with Fractional Base (Level 2)'*. Part of a broader uni on *'Exponents - Fractional Bases and Exponents - Practice'*

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1 Find the answer when this fraction is raised to its exponent

$$\left(\frac{9}{25}\right)^{\left(\frac{1}{2}\right)}$$

a $\frac{2}{5}$ **b** $\frac{4}{5}$ **c** $\frac{3}{5\sqrt{4}}$

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

2 Find the answer when this fraction is raised to its exponent

$$\left(\frac{4}{9}\right)^{\left(\frac{1}{2}\right)}$$

a $\frac{5}{3\sqrt{2}}$ **b** 4 **c** 1

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

3 Find the answer when this fraction is raised to its exponent

$$\left(\frac{9}{121}\right)^{\left(\frac{1}{2}\right)}$$

a 3 **b** $\frac{1}{11}$ **c** $\frac{3}{2}$

d $\frac{3}{11}$ **e** 1 **f** 5

4 Find the answer when this fraction is raised to its exponent

$$\left(\frac{49}{25}\right)^{\left(\frac{1}{2}\right)}$$

a $\frac{1}{5\sqrt{2}}$ **b** $\frac{3}{5}$ **c** $\frac{2}{4}$

d $\frac{3}{5\sqrt{2}}$ **e** $\frac{7}{5}$ **f** 2

5 Find the answer when this fraction is raised to its exponent

$$\left(\frac{125}{8}\right)^{\left(\frac{1}{3}\right)}$$

a $\frac{5}{2}$ **b** 1 **c** $\frac{5}{2\sqrt[3]{4}}$

d 5 **e** $\frac{1}{2}$ **f** $\frac{2}{5}$

6 Find the answer when this fraction is raised to its exponent

$$\left(\frac{4}{121}\right)^{\left(\frac{1}{2}\right)}$$

a $\frac{1}{11}$ **b** $\frac{3}{11\sqrt{2}}$ **c** 1

d $\frac{2}{11}$ **e** 2 **f** $\frac{3}{4}$

7 Find the answer when this fraction is raised to its exponent

$$\left(\frac{27}{8}\right)^{\left(\frac{1}{3}\right)}$$

a $\frac{1}{3}$ **b** $\frac{3}{2}$ **c** 3

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