Math worksheet on *'Exponents - Negative Fractiona Exponents with Square Integer Base - Exponent to Radical (Level 2)'*. Part of a broader unit on *'Exponen - Fractional Bases and Exponents - Practice'*

Learn online:

app.mobius.academy/math/units/exponents_fractional_bases_and_exponents_practi

1 Find the radical that is the same as this number raised to its exponent

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

a $\frac{1}{4\sqrt[3]{125}}$ **b** $\frac{1}{\sqrt[3]{125}}$ **c** $\frac{1}{\sqrt[3]{125^2}}$

d $\sqrt[3]{125^3}$ **e** $\sqrt[3]{125}$ **f** $\frac{1}{1}$

2 Find the radical that is the same as this number raised to its exponent

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

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

d $\frac{1}{5\sqrt{9}}$ **e** $\frac{1}{1}$ **f** $\frac{1}{\sqrt{9^2}}$

3 Find the radical that is the same as this number raised to its exponent

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

a $\frac{1}{4\sqrt[3]{27}}$ **b** $\frac{1}{\sqrt[3]{3}}$ **c** $\frac{1}{\sqrt[3]{2}}$

d $\frac{1}{\sqrt[3]{27}}$ **e** $\frac{1}{5\sqrt[3]{27}}$ **f** $\frac{1}{1}$

4 Find the radical that is the same as this number raised to its exponent

$16^{\left(\frac{-1}{4}\right)}$

a $\frac{1}{1}$ **b** $\frac{1}{3\sqrt[4]{16}}$ **c** $\frac{1}{\sqrt[4]{2}}$

d $\frac{1}{2\sqrt[4]{16}}$ **e** $\frac{1}{\sqrt[4]{16}}$ **f** $\frac{1}{4\sqrt[4]{16}}$

5 Find the radical that is the same as this number raised to its exponent

$216^{\left(\frac{-1}{3}\right)}$

a $\frac{1}{\sqrt[3]{216^2}}$ **b** $\frac{1}{1}$ **c** $\frac{1}{2\sqrt[3]{216}}$

d $\frac{1}{5\sqrt[3]{216}}$ **e** $\frac{1}{\sqrt[3]{216}}$ **f** $\sqrt[3]{216}$

6 Find the radical that is the same as this number raised to its exponent

$32^{\left(\frac{-1}{5}\right)}$

a $\frac{1}{\sqrt[5]{32}}$ **b** $\frac{1}{\sqrt[5]{32^2}}$ **c** $\frac{1}{2\sqrt[5]{32}}$

d $\sqrt[5]{32}$ **e** $\frac{1}{1}$ **f** $\frac{1}{\sqrt[5]{4}}$

7 Find the radical that is the same as this number raised to its exponent

$16^{\left(\frac{-1}{2}\right)}$

a $\frac{1}{\sqrt{16^2}}$ **b** $\sqrt{16}$ **c** $\frac{1}{1}$

d $\frac{1}{5\sqrt{16}}$ **e** $\frac{1}{3\sqrt{16}}$ **f** $\frac{1}{\sqrt{16}}$

©Mobius Math Club