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Math worksheet on *'Exponents - Fractional Exponents with Integer Base - Explanation to Radical (Level 2)'*. Part of a broader unit on *'Exponents - Fractional Bases and Exponents - Intro'*

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

$$32^{(\frac{1}{5})} \cdot 32^{(\frac{1}{5})} \cdot 32^{(\frac{1}{5})} \cdot 32^{(\frac{1}{5})} \cdot 32^{(\frac{1}{5})} = 32$$
$$32^{(\frac{1}{5})} = ?$$

a	b	c	d	e	f
$4\sqrt[5]{32}$	$\sqrt[5]{32}$	$\frac{1}{\sqrt[5]{32}}$	$5\sqrt[5]{32}$	1	$3\sqrt[5]{32}$

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

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

a	b	c	d	e	f
$\sqrt{36}$	$4\sqrt{36}$	1	$2\sqrt{36}$	$\sqrt{36}^2$	$\frac{1}{\sqrt{36}}$

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

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

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

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

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

a	b	c	d	e	f
$5\sqrt{25}$	$4\sqrt{25}$	$\sqrt{25}$	1	$3\sqrt{25}$	$2\sqrt{25}$

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

$$27^{(\frac{1}{3})} \cdot 27^{(\frac{1}{3})} \cdot 27^{(\frac{1}{3})} = 27$$
$$27^{(\frac{1}{3})} = ?$$

a	b	c	d	e	f
$\frac{1}{\sqrt[3]{27}}$	$\sqrt[3]{27}^3$	$\sqrt[3]{27}$	$5\sqrt[3]{27}$	$3\sqrt[3]{27}$	1

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

$$8^{(\frac{1}{3})} \cdot 8^{(\frac{1}{3})} \cdot 8^{(\frac{1}{3})} = 8$$
$$8^{(\frac{1}{3})} = ?$$

a	b	c	d	e	f
$\sqrt[3]{8}$	1	$5\sqrt[3]{8}$	$2\sqrt[3]{8}$	$\sqrt[3]{2}$	$3\sqrt[3]{8}$

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

$$64^{(\frac{1}{3})} \cdot 64^{(\frac{1}{3})} \cdot 64^{(\frac{1}{3})} = 64$$
$$64^{(\frac{1}{3})} = ?$$

a	b	c	d	e	f
$\sqrt[3]{64}^3$	$2\sqrt[3]{64}$	$\sqrt[3]{64}$	$3\sqrt[3]{64}$	1	$\frac{1}{\sqrt[3]{64}}$