

Student Name: KEY

### Cubing Fractions

1)  $\left(\frac{1}{8}\right)^3 = \frac{1}{512}$

2)  $\left(\frac{2}{5}\right)^3 = \frac{8}{125}$

3)  $\left(\frac{3}{4}\right)^3 = \frac{27}{64}$

4)  $\left(\frac{6}{11}\right)^3 = \frac{216}{1331}$

5)  $\left(\frac{1}{10}\right)^3 = \frac{1}{1000}$

6)  $\left(\frac{0}{9}\right)^3 = \frac{0}{729}$

7)  $\left(\frac{10}{12}\right)^3 = \frac{1000}{1728}$

8)  $\left(\frac{7}{13}\right)^3 = \frac{343}{2197}$

### ★ EXTENDING

9)  $\left(\frac{-4}{5}\right)^3 = \frac{-64}{125}$

10)  $-\left(\frac{1}{7}\right)^3 = -\frac{1}{343}$

11)  $\left(\frac{-2}{-3}\right)^3 = \frac{-8}{-27} = \frac{8}{27}$

12)  $\left(\frac{5}{-6}\right)^3 = \frac{125}{-216} = -\frac{125}{216}$

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## Cube Rooting Fractions

1) $\sqrt[3]{\frac{8}{27}} = \frac{2}{3}$	2) $\sqrt[3]{\frac{1}{216}} = \frac{1}{6}$
3) $\sqrt[3]{\frac{343}{125}} = \frac{7}{5} = 1\frac{2}{5}$	4) $\sqrt[3]{\frac{64}{729}} = \frac{4}{9}$
5) $\sqrt[3]{\frac{0}{1331}} = \frac{0}{11} = 0$	6) $\sqrt[3]{\frac{512}{1000}} = \frac{8}{10} = \frac{4}{5}$
7) $\sqrt[3]{\frac{1728}{2744}} = \frac{12}{14} = \frac{6}{7}$	8) $\sqrt[3]{\frac{64}{2197}} = \frac{4}{13}$
★ EXTENDING	
9) $\sqrt[3]{\frac{-8}{1000}} = \frac{-2}{10} = -\frac{1}{5}$	10) $\sqrt[3]{\frac{64}{-125}} = \frac{4}{-5} = -\frac{4}{5}$
11) $\sqrt[3]{\frac{-512}{-1}} = \frac{-8}{-1} = 8$	12) $\sqrt[3]{\frac{27}{-216}} = -\frac{3}{6} = -\frac{1}{2}$

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### Cubing Decimals

$$1) (0.1)^3 = 0.001$$

$$2) (0.5)^3 = 0.125$$

$$3) (0.3)^3 = 0.027$$

$$4) (0.7)^3 = 0.343$$

$$5) (1.1)^3 = 1.331$$

$$6) (1.3)^3 = 2.197$$

$$7) (0.02)^3 = 0.000008$$

$$8) (0.04)^3 = 0.000064$$

#### ★ EXTENDING

$$9) (-0.4)^3 = -0.064$$

$$10) (-0.1)^3 = -0.001$$

$$11) -(0.6)^3 = -0.216$$

$$12) -(-0.7)^3 = -(-0.343) \\ = 0.343$$

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### Cube Rooting Decimals

1) $\sqrt[3]{0.027} = 0.3$	2) $\sqrt[3]{0.125} = 0.5$
3) $\sqrt[3]{0.001} = 0.1$	4) $\sqrt[3]{0.343} = 0.7$
5) $\sqrt[3]{1.000} = 1$	6) $\sqrt[3]{0.008} = 0.2$
7) $\sqrt[3]{2.744} = 1.4$	8) $\sqrt[3]{1.331} = 1.1$
★ EXTENDING	
9) $\sqrt[3]{-0.064} = -0.4$	10) $\sqrt[3]{-0.216} = -0.6$
11) $-\sqrt[3]{0.512} = -0.8$	12) $-\sqrt[3]{-0.729} = -(-0.9)$ $= 0.9$