

Warm - Up

1. Convert the following to a decimal: $\frac{5}{8}$

$$\boxed{0.625}$$

$$\begin{array}{r} 0.625 \\ 8 \overline{) 5.000} \\ \underline{-4} \\ 10 \\ \underline{-8} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

2. Convert the following to reduced fractions: 1.45, $0.\overline{64}$

$$1 \frac{45}{100} \div 5 = 1 \frac{9}{20}$$

$$\boxed{\frac{64}{99}}$$

3. Solve: $\frac{3}{5} + 1\frac{1}{6}$

$$\frac{18}{30} + 1\frac{5}{30} = 1\frac{23}{30}$$

Square and Cube Roots

Perfect Square = numbers that
are made from squaring an
integer

↓
2nd power

$$1^2 = 1$$

$$2^2 = 4$$

$$3^2 = 9$$

$$4^2 = 16$$

$$5^2 = 25$$

$$6^2 = 36$$

$$7^2 = 49$$

$$8^2 = 64$$

$$9^2 = 81$$

$$10^2 = 100$$

$$11^2 = 121$$

$$12^2 = 144$$

$$13^2 = 169$$

$$14^2 = 196$$

$$15^2 = 225$$

$$16^2 = 256$$

Square root - one of
two equal factors in a
number

$$\sqrt{196} = 14$$

$$\sqrt{256} = 16$$

$$\sqrt{169} = 13$$

$$\sqrt{81} = 9$$

$$1^3 = 1$$

$$2^3 = 8$$

$$3^3 = 27$$

$$4^3 = 64$$

$$5^3 = 125$$

$$6^3 = 216$$

$$7^3 = 343$$

$$8^3 = 512$$

$$9^3 = 729$$

$$10^3 = 1,000$$

Cube Roots:

- One of three equal factors in a number

$$\sqrt[3]{8} = 2$$

$$\sqrt[3]{125} = 5$$

$$\sqrt[3]{27} = 3$$

$$\sqrt{64} = 8$$

$$\sqrt[3]{64} = 4$$

Estimating Square Roots

Estimate to the nearest whole number

$$\sqrt{4} \quad \sqrt{8} \approx 3 \quad \sqrt{9}$$

← About

$$\sqrt{121} \quad \sqrt{135} \approx 12 \quad \sqrt{144}$$