

Air Fuel Ratio Worksheet

Name KEY

Use the following ratio for your air fuel ratio:

$$\frac{1380 \text{ ft}^3}{1 \text{ gallon of gasoline}}$$

- 1) How many cubic feet of air is needed to burn 14 gallons of gas?

$$\frac{1380 \text{ ft}^3}{1 \text{ gallon}} = \frac{x}{14 \text{ gallons}}$$

$$(1380)(14) = 1x$$

$$19,320 = x$$

$$\boxed{19,320 \text{ ft}^3}$$

- 2) How many cubic feet of air is needed to burn 4.5 gallons of gas?

$$\frac{1380 \text{ ft}^3}{1 \text{ gallon}} = \frac{x}{4.5 \text{ gallons}}$$

$$x = (1380)(4.5) = \boxed{6210 \text{ ft}^3}$$

- 3) How many gallons of gas will 13,110 ft
- ³
- burn completely?

$$\frac{1380 \text{ ft}^3}{1 \text{ gallon}} = \frac{13110 \text{ ft}^3}{x \text{ gallons}} = \frac{1380x}{1380} = \frac{13110}{1380}$$

$$x = 9.5$$

$$\boxed{9.5 \text{ gallons}}$$

- 4) How many gallons of gas will 56,235 ft
- ³
- burn completely?

$$\frac{1380 \text{ ft}^3}{1 \text{ gallon}} = \frac{56,235 \text{ ft}^3}{x \text{ gallons}}$$

$$1380x = 56,235$$

$$\boxed{x = 40.75 \text{ gallons}}$$

- 5) 7 out of 10 students prefer gym class over art class. In a school of 873 students, how many students will pick an art class?

If 7 out of 10 prefer Gym class
then 3 out of 10
prefer Art class

$$\frac{3}{10} = \frac{x}{873} = \frac{10x}{10} = \frac{2619}{10}$$

$$x = 261.9$$

$$\boxed{\approx 262 \text{ students}}$$