Review: Simplifying Fractions

February 11, 2015

- to simplify a fraction, divide the numerator and denominator by a common factor

- if the fraction cannot be divided by any other common factor, then it is in lowest terms

Ex #1 Simplify $\frac{18}{27}$

$\frac{18}{27}$ ← numerator
$\frac{18}{27}$ ← denominator

$\frac{18 \div 9}{27 \div 9} = \boxed{\frac{2}{3}}$

Can also be used to find an unknown factor

Ex. #2 Find x when

$$\frac{27}{1} = \frac{x}{3}$$

$\frac{27}{1} \times \frac{x}{3}$ cross multiply and divide

$81 = 1x$

so $x = 81$

Assignment #1

a) $\frac{4}{16} = \frac{1}{4}$ b) $\frac{3}{12} = \frac{1}{4}$ c) $\frac{25}{75} = \frac{1}{3}$

d) $\frac{15}{21} = \frac{5}{7}$ e) $\frac{8}{18} = \frac{4}{9}$ f) $\frac{45}{100} = \frac{9}{20}$

g) $\frac{20}{50} = \frac{2}{5}$ h) $\frac{3}{21} = \frac{1}{7}$ i) $\frac{7}{56} = \frac{1}{8}$

Assignment #2

1 $\frac{x}{7} = \frac{4}{35}$

$\frac{35x}{35} = \frac{28}{35}$

$x = 0.8$

2 $\frac{2}{9} = \frac{x}{27}$

$\frac{54}{9} = \frac{9x}{9}$

$6 = x$

3 $\frac{3}{18} = \frac{25}{x}$

$\frac{3x}{3} = \frac{450}{3}$

$x = 150$

#4 $x = 0,8$ 5. $x = 0.2$ 6 $x = 125$