

3:04A | Simplifying Algebraic Fractions

Name: _____

Class: _____

Examples

Simplify.

$$1 \quad \frac{4}{11} + \frac{3}{11} = \frac{7}{11}$$

$$2 \quad \frac{7}{12} - \frac{5}{12} = \frac{2}{12} = \frac{1}{6}$$

$$3 \quad \frac{x}{2} + \frac{x}{5} = \frac{5x}{10} + \frac{2x}{10} = \frac{7x}{10}$$

$$4 \quad \frac{3a}{5} - \frac{a}{4} = \frac{12a}{20} - \frac{5a}{20} = \frac{7a}{20}$$



- You need the same denominator.
- Cancel to simplify, if needed.

Exercise

1 Simplify.

a $\frac{1}{7} + \frac{3}{7}$

b $\frac{4}{13} + \frac{3}{13}$

c $\frac{8}{20} + \frac{3}{20}$

d $\frac{4}{5} - \frac{1}{5}$

e $\frac{8}{9} - \frac{1}{9}$

f $\frac{6}{11} - \frac{4}{11}$

g $\frac{2}{11} + \frac{7}{11}$

h $\frac{2}{9} + \frac{5}{9}$

2 Simplify.

a $\frac{7}{10} - \frac{3}{10}$

b $\frac{5}{12} + \frac{1}{12}$

c $\frac{3}{20} + \frac{11}{20}$

d $\frac{7}{15} - \frac{4}{15}$

e $\frac{7}{8} - \frac{1}{8}$

f $\frac{1}{10} + \frac{7}{10}$

g $\frac{13}{20} + \frac{3}{20}$

h $\frac{5}{9} - \frac{2}{9}$

i $\frac{18}{25} + \frac{2}{25}$

j $\frac{13}{16} - \frac{5}{16}$

k $\frac{2}{15} + \frac{8}{15}$

l $\frac{11}{20} - \frac{7}{20}$

3 Simplify.

a $\frac{x}{5} + \frac{2x}{5}$

b $\frac{4c}{9} - \frac{c}{9}$

c $\frac{7y}{12} + \frac{y}{12}$

d $\frac{2p}{25} + \frac{4p}{25}$

e $\frac{m}{4} + \frac{m}{3}$

f $\frac{a}{3} - \frac{a}{10}$

g $\frac{2b}{5} + \frac{b}{4}$

h $\frac{x}{6} + \frac{3x}{5}$

i $\frac{2n}{3} - \frac{4n}{7}$

j $\frac{7q}{10} + \frac{q}{2}$

k $\frac{2c}{5} - \frac{c}{8}$

l $\frac{3d}{4} - \frac{d}{6}$

m $\frac{3x}{5} + \frac{4x}{15}$

n $\frac{7m}{8} - \frac{2m}{3}$

o $\frac{3t}{5} + \frac{t}{6}$

p $\frac{17m}{20} - \frac{3m}{4}$

q $\frac{x}{6} - \frac{x}{10}$

r $\frac{3a}{4} - \frac{a}{3}$

s $\frac{7k}{10} + \frac{k}{4}$

t $\frac{5n}{2} - \frac{4n}{3}$

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1 a	$\frac{4}{7}$	b	$\frac{7}{13}$	c	$\frac{11}{20}$	d	$\frac{3}{5}$	e	$\frac{7}{9}$	f	$\frac{2}{11}$	g	$\frac{9}{11}$	h	$\frac{7}{9}$	
2 a	$\frac{2}{5}$	b	$\frac{1}{2}$	c	$\frac{7}{10}$	d	$\frac{1}{5}$	e	$\frac{3}{4}$	f	$\frac{4}{5}$	g	$\frac{4}{5}$	h	$\frac{1}{3}$	
	i	$\frac{4}{5}$	j	$\frac{1}{2}$	k	$\frac{2}{3}$	l	$\frac{1}{5}$								
3 a	$\frac{3x}{5}$	b	$\frac{c}{3}$	c	$\frac{2y}{3}$	d	$\frac{6p}{25}$	e	$\frac{7m}{12}$	f	$\frac{7a}{30}$	g	$\frac{13b}{20}$	h	$\frac{23x}{30}$	
	i	$\frac{2n}{21}$	j	$\frac{6q}{5}$	k	$\frac{11c}{40}$	l	$\frac{7d}{12}$	m	$\frac{13x}{15}$	n	$\frac{5m}{24}$	o	$\frac{23t}{30}$	p	$\frac{m}{10}$
	q	$\frac{x}{15}$	r	$\frac{5a}{12}$	s	$\frac{19k}{20}$	t	$\frac{7n}{6}$								