



Grade 8 Warm Up

Date: Apr 17

Test Friday Apr 28

1) The ratio of cats to dogs at the animal shelter is 4 to 5. How many cats could there be? How many dogs? Write six different answers.

$C : D$
 $4 : 5$
 $8 : 10$
 $12 : 15$
 $16 : 20$
 $20 : 25$
 $24 : 30$
 $28 : 35$

Handwritten arrows indicate multiplication factors: $\times 2$ (green), $\times 3$ (blue), and $\times 4$ (black).



2) The length-to-width ratio of Colby's poster is 3:2. The poster is 90 cm long. How wide is it?

$L : W$
 $3 : 2$
 $90 : \boxed{60}$

Handwritten arrows indicate multiplication by 30: $\times 30$ (green).

It is 60 cm wide.

3) 4:7 is equivalent to 12:21

Handwritten arrows indicate multiplication by 3: $\times 3$ (red and green).

4) 24:10 is equivalent to 60:25

Handwritten text: "Reduce (equivalent)" with a wavy line under "Reduce".

Handwritten arrows indicate multiplication by 5: $\times 5$ (green).

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1. Answer will vary
Students' opinion
2. A ratio is in simplest form if
a) there are no common factors in the terms.

b) Example 1 is simplest form,
Ex 2 is not.

4. Are $3:2$ and $2:3$ the same?
★
Order is important, so no the ratios are not the same.

5 a) $1:2$
★ ★ $2:4, 4:8, 8:16$

★ b) $2:3$
 $4:6, 40:60, 10:15$

★ c) $1:4$
 $2:8, 4:16, 10:40$

$$6a) 3:4$$

$$\star 30:40, 6:8, 12:16$$

$$\star b) 14:4$$

$$28:8, 42:12, 7:2$$

$$\star c) 24:25$$

$$240:250, 48:50, 72:75$$

$$7a) 1:3:6$$

$$\star 2:6:12, 4:12:24, 3:9:18$$

$$\star b) 12:5:7$$

$$24:10:14, 36:15:21, 48:20:28$$

$$\star c) 24:4:8$$

$$12:2:4, 240:40:80, 6:1:2$$

$$\star 8a) 5:15$$

$$1:3$$

$$\star b) 6:9$$

$$2:3$$

$$\star c) 3:12:18$$

$$1:4:6$$

$$\star d) 110:70:15$$

$$22:14:3$$

9 a) chairs : tables

$$\star \quad 32 : 8$$

$$4 : 1$$

★ b) Amer cars : Jap cars

$$4 : 12$$

$$1 : 3$$

★ c) blue paint : yellow paint : white paint

$$6 : 2 : 1$$

★ d) Canadian stamps : Amer stamps : Asian stamps

$$12 : 24 : 9$$

$$4 : 8 : 3$$

10 a) $2 : 7 = \frac{\quad}{8} : 28$

$$\star \quad \begin{array}{cc} \times 4 & \times 4 \\ 2 & 7 \end{array} = \frac{\quad}{8} : 28$$

★ b) $5 : 12 = 25 : \frac{\quad}{60}$

$$\star \quad \begin{array}{cc} \times 5 & \times 5 \\ 5 & 12 \end{array} = 25 : \frac{\quad}{60}$$

★ c) $\frac{\quad}{40} : 24 = \frac{5}{\quad} : \frac{3}{\quad}$

$$\star \quad \frac{\quad}{40} : 24 = \frac{5}{\times 8} : \frac{3}{\times 8}$$

★ d) $3 : \underline{7} : 11 = 30 : 70 : 110$

$$\star \text{!!} \quad 2:3:4 = 6:9:12$$

$$8:5:4 = 16:10:8$$

$$3:2:1 =$$

$$3:6:9 = 1:2:3$$

$$5:8:4$$

$$9:12:15 = 3:4:5$$

\star b) They are equivalent if each term is multiplied or divided by the same number.

12. non fiction: fiction

$$3:1$$

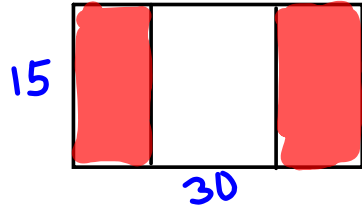
$$300:100$$

$$1500:500$$

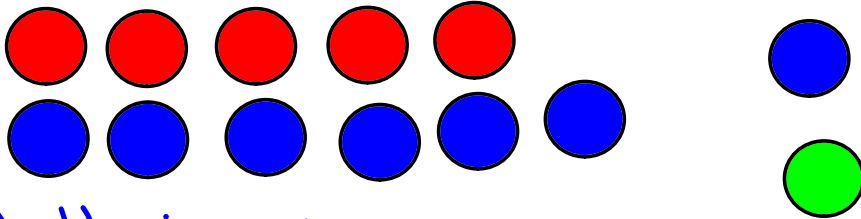
b) There are numerous answers, depending on the size of the library.

13. Length: width
 $\frac{2}{20} : \frac{1}{10}$
 $30 : 15$

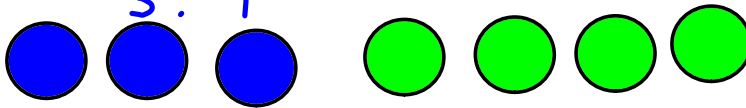
- largest from the sheet of paper



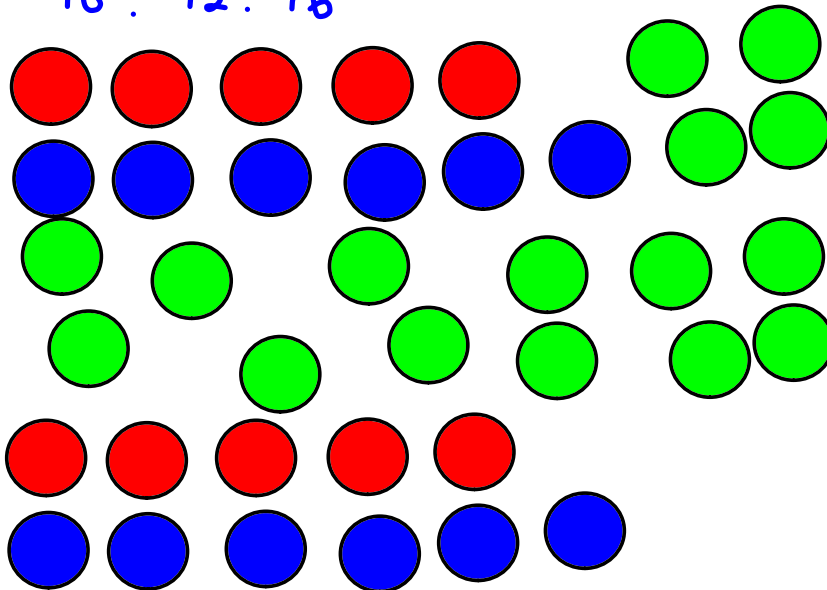
14. red : blue
 $5 : 6$



b) blue : green
 $3 : 4$



c) red : blue : green
 $10 : 12 : 16$

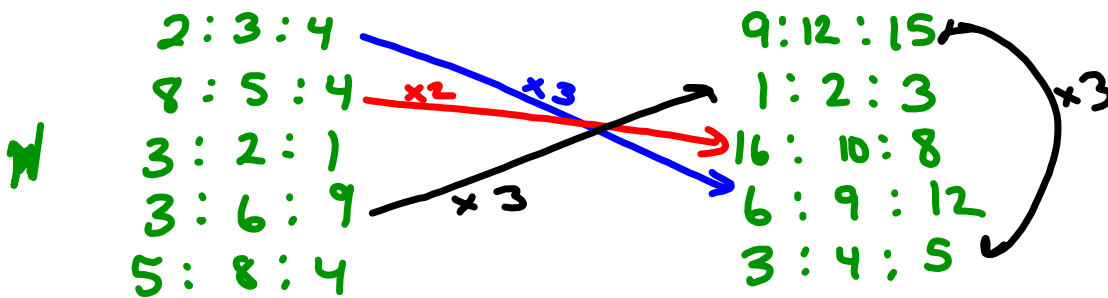


(b) $10^r : 12^b : 16^g$
 satisfies all 3.

Class/Homework

x on test

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13) $L:W$
 $2:1$

Paper 20 x 30

$\times 10$
 $L:W$
 $2:1$
 $20:10$
Fits on paper

$\times 30$
 $L:W$
 $2:1$
 $60:30$

$$15) a) \quad 16:30 \\ 8:15$$

$$28:42 \\ \text{No}$$

$$b) \quad 27:63 \\ \div 9 \quad \div 9$$

$$49:21 \\ \div 7 \quad \div 7$$

$$3:7$$

$$7:3$$

Reduce

No

$$c) \quad 56:104:88$$

$$\begin{array}{r} \text{B} \\ 5 \\ \times 4 \\ \hline 20 \end{array} : \begin{array}{r} \text{G} \\ 3 \\ \times 4 \\ \hline 12 \end{array} : \begin{array}{r} \text{Total} \\ 8 \\ \times 4 \\ \hline 32 \end{array}$$

12)

3 out of 4
NF Tot

NF	:	F	
3	:	1	
30	:	10	$\times 10$
60	:	20	$\times 20$
15	:	15	$\times 5$

