



Grade 8 Warm Up

Date: April 11

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.

Cats : Dogs

4 : 5

$\times 2 \downarrow$ $\times 2 \downarrow$

8 : 10

$\times 3 \leftarrow$ $\times 3 \leftarrow$

12 : 15

16 : 20

20 : 25

24 : 30

28 : 35



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

$\times 30 \rightarrow$ $\times 30 \rightarrow$

90 : 60

?

The poster is 60cm wide.

3) 4: 7 is equivalent to ___:21

Term 1 : Term 2

4 : 7

$\times 3 \leftarrow$ $\times 3 \leftarrow$

12 : 21

4) 24:10 is equivalent to 60:___

24 : 10

Reduce first

12 : 5

$\times 5 \leftarrow$ $\times 5 \leftarrow$

60 : 25

pg 273

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)

$$\star \quad 2 : 7 = \frac{\quad}{8} : 28$$

$$\quad \quad \times 4 \quad \times 4$$

★ b)

$$5 : 12 = 25 : \frac{\quad}{60}$$

$$\quad \quad \times 5 \quad \times 5$$

★ c)

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

$$\quad \quad \times 8 \quad \times 8$$

★ 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

$$3:1$$

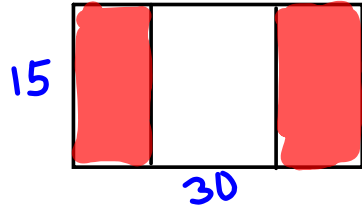
$$300:100$$

$$1500:500$$

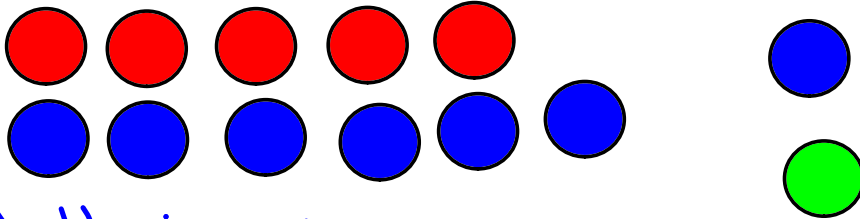
b) There are numerous answers, depending on the size of the library.

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

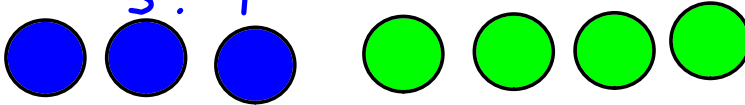
- largest from the sheet of paper



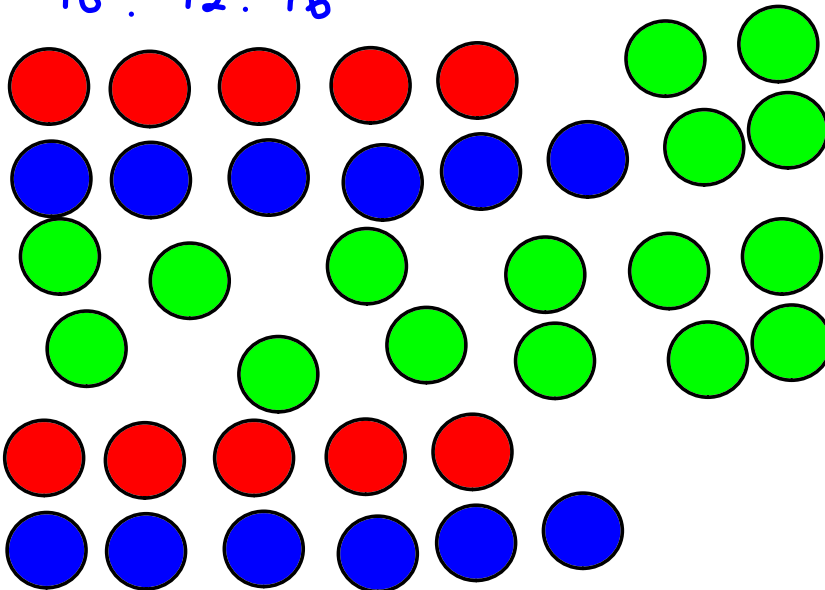
14. red : blue
 $5 : 6$



b) blue : green
 $3 : 4$



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



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

Class/Homework

Page 275 ~~#11~~, #12a, #13, #15, #16, #17

— 3 out of 4^{Total} are Non-f

12 a) 3 Non-fiction
1 Fiction

NF	:	F	:	T
3	:	1	:	4
6	:	2	:	8
9	:	3	:	12
12	:	4	:	16
15	:	5	:	20

$$\begin{array}{l} \div 5 \quad (10 : 35) \div 5 \\ \text{Reduce} \quad 2 : 7 \\ \square : 42 \end{array} \quad \square : 42$$

$$\begin{array}{l} \text{b) } 36 : 78 \\ \quad 18 : 39 \\ \quad 6 : 13 \\ \square : 182 \end{array}$$