



Warm Up Grade 8

Test Wed. April 24



1) The recommended seeding on a package of grass seed is 200 g per 9 m². Carey spread 150 g over 6.5 m². Is this more than, equal to, or less than the recommended seeding? How do you know? (Make a term 1)

Rec
 Seed : Area
 200g : 9m²
 22.2g : 1m² (÷9)

Carey
 Seed : area
 150g : 6.5m²
 23.07g : 1m² (÷6.5)

↓
 It's more than recommended

2) A contractor brought 2 shades of yellow paint for his clients to see. Shade 1 is made by mixing 5 cans of yellow paint with 3 cans of white paint. Shade 2 is made by mixing 7 cans of yellow paint with 4 cans of white paint. The clients want the lighter shade. Which shade should they choose?

Shade 1
 Y : W
 5 : 3 (÷3)
 1.6 : 1

Shade 2
 Y : W
 7 : 4 (÷4)
 1.75 : 1

Less Yellow
 Lighter

More Yellow
 Darker



OR
Shade 1
 Y : W
 5 : 3
 ×4 → 20 : 12

Shade 2
 Y : W
 7 : 4
 ×3 → 21 : 12

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10. Alison
 6 of 13 shots
 $\times 9$ $\times 9$

54 of 117

$$\frac{6}{13} = 0.46$$

or
 46% of
 shots

Nadhu
 5 of 9 shots
 $\times 13$ $\times 13$

65 of 117

$$\frac{5}{9} = 0.555... -$$

or 56% of
 shots

Nadhu played better.

11. Calgary
 2 pizza for 3 people
 $\div 3$ $\div 3$

$\frac{2}{3}$ pizza / person

0.666...

Alber ta
 3 pizzas for 5 people
 $\div 5$ $\div 5$

$\frac{3}{5}$ / person

$\frac{6}{10}$ or 0.6

The Calgary team
 received more pizza per person

(b) Yes, you could find what
 percent of a pizza each person
 received.

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Recipe A		OR	Recipe B
vinegar : oil	$\frac{5}{25}$	$\frac{3}{9}$ or $\frac{5}{15}$	vinegar : oil
150 : 250	$\frac{41}{80}$	$\frac{45}{90}$	225 : 400
450 : 750			450 : 800

less than B so stronger vinegar

Recipe A has a stronger vinegar taste, they both have 450ml of vinegar, but A has less oil.

13. Ms Arbuckle

Fiction : Non Fiction

7 : 5

42 : 30

Fiction

Mr. Albright

Fiction | Non Fict.

4 : 3

40 : 30

Fiction

b) Ms Arbuckle

$\frac{30}{72} = 0.42$ or 42%

Mr. Albright

$\frac{30}{70} = 0.43$ or 43%

14. A conc : water B conc : water

2 : 1 3 : 2

b) A 6 : 3

6 : 4

then add one can of water to A to make the conc : water the same.

15. a)	red : yellow	b)	red : yellow
A	4 : 12		1 : 3
B	3 : 15		1 : 5
C	2 : 3		1 : 1.5

c) Shade C will have the most red

d) Shade B will have the most yellow.

16. Cage A
White : Brown
5 : 6

Cage B
White : Brown
7 : 5

Marcel says B has more brown,
 $\frac{6}{11} > \frac{1}{2}$ and $\frac{5}{12} < \frac{1}{2}$

He is correct, he compared brown to all.

17. Glider A
14 : 3
56 : 12

Glider B
15 : 4
45 : 12

Glider A will move forward 56 m for every 12 m of altitude lost

Glider B will move forward 45 m for every 12 m of altitude lost.

Glider A will cover the most horizontal distance.

18. One box
Hockey : Basketball : All
4 : 3 : 7
20 : 15 : 35

2nd box
H : B : All
3 : 2 : 5
21 : 14 : 35

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4. (a) $t : 18 = 6 : 3$

$$\begin{array}{l} \text{✿ } 36 : 18 = 6 : 3 \\ t = 36 \end{array}$$

(c) $x : 15 = 2 : 3$

$$\begin{array}{l} \text{✿ } 10 : 15 = 2 : 3 \\ x = 10 \end{array}$$

(e) $6 : c = 2 : 11$

$$\begin{array}{l} \text{✿ } 6 : 33 = 2 : 11 \\ c = 33 \end{array}$$

5. (a) $5 : t = 15 : 36$

$$\begin{array}{l} \text{✿ } 5 : 12 = 15 : 36 \\ t = 12 \end{array}$$

(c) $120 : 70 = 12 : k$

$$\begin{array}{l} \text{✿ } 120 : 70 = 12 : 7 \\ k = 7 \end{array}$$

(e) $27 : 63 = p : 7$

$$\begin{array}{l} \text{✿ } 27 : 63 = 3 : 7 \\ p = 3 \end{array}$$

(b) $v : 60 = 3 : 10$

$$\begin{array}{l} 18 : 60 = 3 : 10 \\ v = 18 \end{array}$$

(d) $s : 28 = 9 : 4$

$$\begin{array}{l} 63 : 28 = 9 : 4 \\ s = 63 \end{array}$$

(f) $39 : b = 3 : 2$

$$\begin{array}{l} 39 : 26 = 3 : 2 \\ b = 26 \end{array}$$

(b) $45 : 72 = 5 : n$

$$\begin{array}{l} 45 : 72 = 5 : 8 \\ n = 8 \end{array}$$

(d) $81 : 27 = 9 : m$

$$\begin{array}{l} 81 : 27 = 9 : 3 \\ m = 3 \end{array}$$

(f) $8 : s = 64 : 80$

$$\begin{array}{l} 8 : 10 = 64 : 80 \\ s = 10 \end{array}$$

6. (a) $1 : 6 = a : 54$

$$1 : 6 = 9 : 54$$

$$a = 9$$

(b) $3 : 8 = e : 40$

$$3 : 8 = _ : 40$$

$$e = 15$$

(c) $2 : 15 = f : 75$

$$2 : 15 = _ : 75$$

$$f = 10$$

(d) $42 : 36 = g : 6$

$$42 : 36 = _ : 6$$

$$g = 7$$

(e) $3 : 7 = 30 : p$

$$3 : 7 = 30 : _$$

$$p = 70$$

(f) $26 : 65 = 2 : r$

$$26 : 65 = 2 : _$$

$$r = 5$$

7. (a) $18 : a = 14 : 21$

$$18 : _ = 2 : 3$$

$$a = 27$$

(b) $35 : b = 15 : 12$

$$35 : _ = 5 : 4$$

$$b = 28$$

(c) $m : 18 = 18 : 27$

$$_ : 18 = 6 : 9$$

$$m = 12$$

(d) $88 : 33 = h : 6$

$$8 : 3 = _ : 6$$

$$h = 16$$

(e) $6 : 8 = j : 44$

$$3 : 4 = _ : 44$$

$$j = 33$$

(f) $15 : 42 = 20 : w$

$$60 : 168 = 20 : w$$

$$\div 3 \quad \div 3$$

$$w = 56$$

$$15 : 42 = 20 : w$$

$$5 : 14 = 20 : _$$

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

$$w = 56$$



Solving Ratio Problems

Have students work on Investigate pg. 287

Recipe for Apple pie that serves 6 people.

500 ml flour

200 ml of margarine

500 g sliced apples

125 g sugar.

Toby only has 350 g of sliced apples.

How much of each of the ingredients does Toby need to make the pie?

How many people will Toby's pie serve?



Solving Ratio Problems

Have students work on Investigate pg. 287

Recipe for Apple pie that serves 6 people.

500 ml flour

200 ml of margarine

500 g sliced apples

125 g sugar.

$\div 10$
 50ml
 20ml
 50g
 12.5g

$\times 7$
 350ml
 140ml
 350g
 87.5g

Toby only has 350 g of sliced apples.

How much of each of the ingredients does Toby need to make the pie?

How many people will Toby's pie serve?

$$\frac{7}{10} = \frac{35}{50} = \frac{350}{500}$$

ONLY MAKES 70% OF BATCH

$$70\% \text{ OF } 6 = 4.2$$

When given a question to find the missing variable in a ratio:

- First see if you can multiply or divide to get a term in the second ratio.
- Reduce the given ratio, if possible, then recheck to see if you can multiply or divide.
- Finally, make the same term in each ratio equal to solve for the missing term.

Examples

a) $3 : 8 = \underline{9} : 24$

b) $15 : 40 = \underline{p} : 48$

$\div 5 \quad \div 5$

Reduce

$3 : 8 = \underline{18} : 48$

c) $4 : 9 = \underline{v} : 10$

c)

$4 : 9 = v : 10$

$\times 10 \quad \times 10 \quad \times 9 \quad \times 9$

$\boxed{40} : 90 = \boxed{9v} : 90$

$40 = 9v$

$\frac{40}{9} = \frac{9v}{9}$

$\boxed{4.\bar{4} = v}$

hint can you make the second term the same??

$\frac{4}{9} = \frac{v}{10}$

$9v = 4 \times 10$

$\frac{9v}{9} = \frac{40}{9}$

$\boxed{v = 4.\bar{4}}$

Class/Homework

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Worksheet 8 - Solving Ratios



Attachments

Extra Practice 8 Solving Ratios.pdf