

61 School days until...
(94)



Warm Up Grade 8
March 20, 2018



time is ticking

1) Complete the chart

Fraction	Decimal	Percent
$\frac{8}{11}$	0.72	$\approx 72\%$
$\frac{15}{7}$	2.14	214%
$\frac{789}{1000}$	0.789	78.9%
$\frac{56}{1000} = \frac{28}{500} = \frac{14}{250} = \frac{7}{125}$	0.056	5.6%
$\frac{2}{1000} = \frac{1}{500}$	0.002	0.2%

2) If 55% of the regular price is \$19.25, what is the regular price?

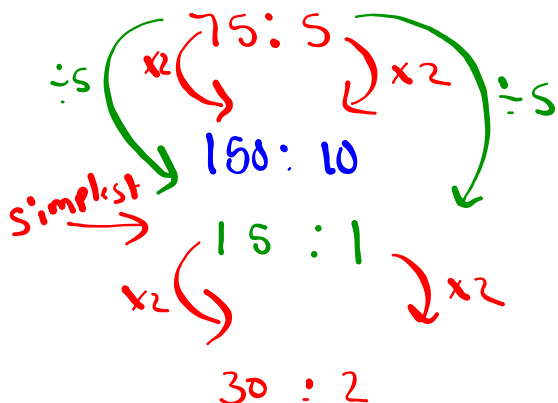
$$0.55 \times R = 19.25$$

$$\frac{0.55 \times R}{0.55} = \frac{19.25}{0.55}$$

$$R = \$35$$

Regular price is \$35

3) Write 3 equivalent ratios to 75:5



12. non fiction : fiction
3 : 1
300 : 100
1500 : 500

$\frac{3}{4}$ Non

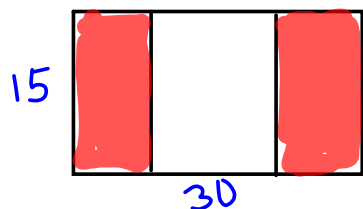
3 : Total

3 : 4

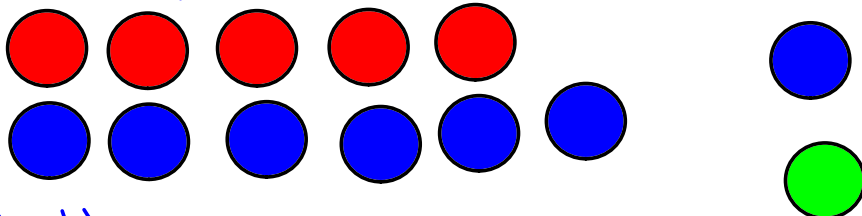
b) There are numerous answers,
depending on the size of the library.

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

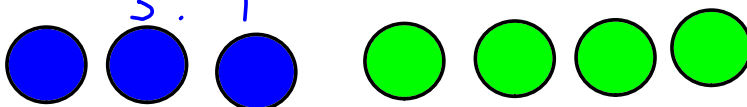
- largest from the sheet of paper
 paper 30 x 20



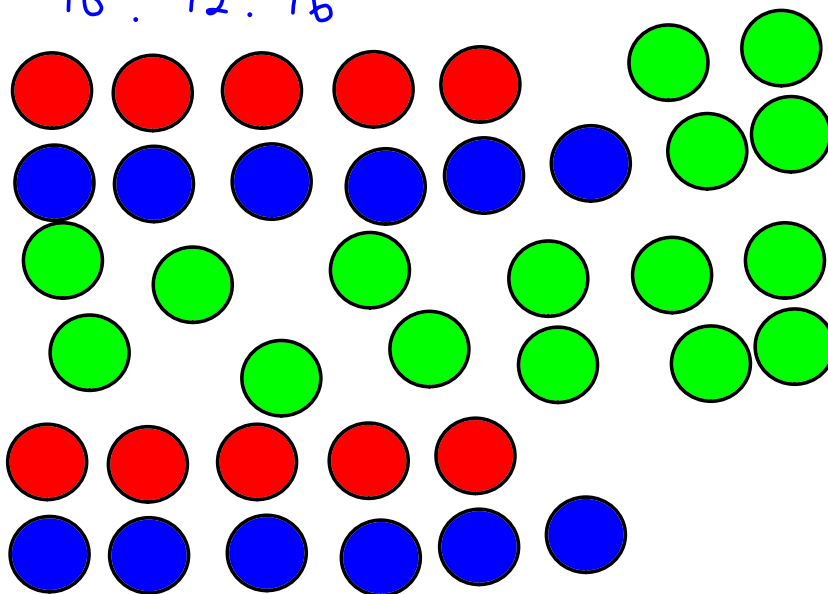
14. red : blue
 $5 : 6$



b) blue : green
 $3 : 4$



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



(b) $\frac{10}{3} : \frac{12}{4} : \frac{16}{4}$
 satisfies all 3.

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To see if the ratios are equivalent, reduce or find equivalent ratios with the same terms.

15. a) $16:30$ and $28:42$
 $8:15$ $14:21$
 $2:3$
 $8:12$

↙ Not
Same ↘

They are not equivalent

b) $27:63$ $49:21$
 $3:7$ $7:3$

Not equivalent, in first ratio the first term is smaller, but in the second ratio, the first term is larger

c) $56:104:88$ $42:78:66$
 $28:52:44$ $7:13:11$
 $14:26:22$
 $7:13:11$

They are equivalent

d) $20:70:50$ $30:105:75$
 $2:7:5$ $2:7:5$

They are equivalent.

16. girls : boys student 32
 $5:3$ 8 students
 $10:6$ 16
 $15:9$ 24
 $20:12$ 32 ←

There are 12 boys and 20 girls in the class.

17. a) $10 : 35 = \underline{\quad} : 42$
 $\div 5$ (Always Reduce)
 $2 : 7 = \frac{12}{x6} : 42$

b) $36 : 78 = \underline{\quad} : 182$
 $\div 6 \quad \div 6$
 $6 : 13 = \frac{84}{x14} : 182$

c) $\frac{120}{\div 5.6} : 15 = 68 : 85$
 $\div 5.6 \quad \div 5.6$

d) $49 : \underline{\quad} : 63 = 84 : 36 : 108$
 Always Reduce $\div 12 \quad \div 12$
 $49 : \underline{21} : 63 = 7 : 3 : 9$

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1. No, because there are 365 days in a year and 400 students so there can not be 2 students with the same b-day every day

$$365 + 365 = 730$$

and there may be some days with more than 2 birthdays

2.

Eggs: sugar: milk: vanilla
 6 : 1 : 750 : 5

$$2 : \frac{1}{3} : 250 : \frac{5}{3}$$

$$4 : \frac{2}{3} : 500 : \frac{10}{3}$$

3. \$3.99 for dozen or 35¢ each

35 for 1

70¢ for 2

420¢ for 12

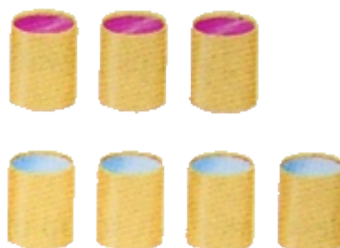
\$3.99 for a dozen is a better deal.

Comparing Rates

Recipe A for punch calls for 2 cans of concentrate and 3 cans of water.



Recipe B for punch calls for 3 cans of concentrate and 4 cans of water.



In which recipe is the punch stronger?
Or, are the drinks the same strength?
Explain how you know.

Recipe A

Juice : Water
 $2 : 3$
 Term 1 Term 2
 x3 x3
 make term 1 same
 $6 : 9$
 more water
 so Juice is weak

Recipe B

Juice : Water
 $3 : 4$
 Term 1 Term 2
 x2 x2
 $6 : 8$
 less water
 so Stronger

Make term 2 same

J : W
 $2 : 3$
 $8 : 12$
 ↓
 less Juice
 ↓
 weaker

J : W
 $3 : 4$
 $9 : 12$
 ↓
 more Juice
 ↓
 Stronger



You can **compare ratios** either by:

- getting equivalent ratios with one of the terms the same in both ratios
- changing each ratio so that the **second term is 1**

Erica makes her coffee with 2 scoops of coffee and 5 cups of water.

Jim makes his coffee with 3 scoops of coffee and 7 cups of water.

Whose coffee is stronger?



No coffee, No workee.



Erica Coffee: Water
 $\begin{matrix} \times 3 \curvearrowright & 2 & : & 5 \\ & 6 & : & 15 \end{matrix} \curvearrowleft \times 3$
 ↓
 more water
 ↓
 weaker

Jim Coffee: Water
 $\begin{matrix} \times 2 \curvearrowright & 3 & : & 7 \\ & 6 & : & 14 \end{matrix} \curvearrowleft \times 2$
 ↓
 less water
 ↓
 Stronger

Or

14:35

15:35



Jim's coffee is stronger

You can compare ratios either by:

- getting equivalent ratios with one of the terms the same in both ratios
- changing each ratio so that the second term is 1

Class/Homework

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- # 4(a,d,f),
#5(a,d,f),
#6,
#7,
#8,
#9

4a) Make term 1 = to 1

$$\begin{array}{l} \text{a) } 3 : 12 \\ \div 3 \quad \downarrow \div 3 \\ 1 : 4 \end{array}$$

6) Option 1

Blue : White

$$4 : 3$$

$$28 : 21$$

↓
more white
↓
lighter

Option 2

Blue : White

$$7 : 5$$

$$28 : 20$$

↓
less white
↓
darker