

Name: Key Date: _____

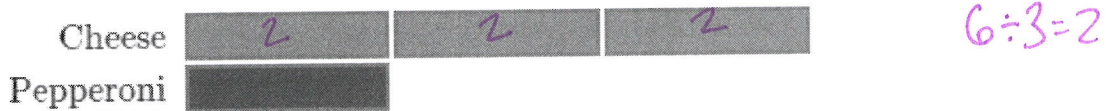
Unit 2 Study Guide

Before you begin, please get a piece of paper so you have a bigger workspace! If you use this extra paper, please NUMBER each problem as you do it so I can see your work.

Staple your work to this sheet before you hand it in.

1)

The school band bought cheese and pepperoni pizzas in the ratio represented in the tape diagram for their end of year party.

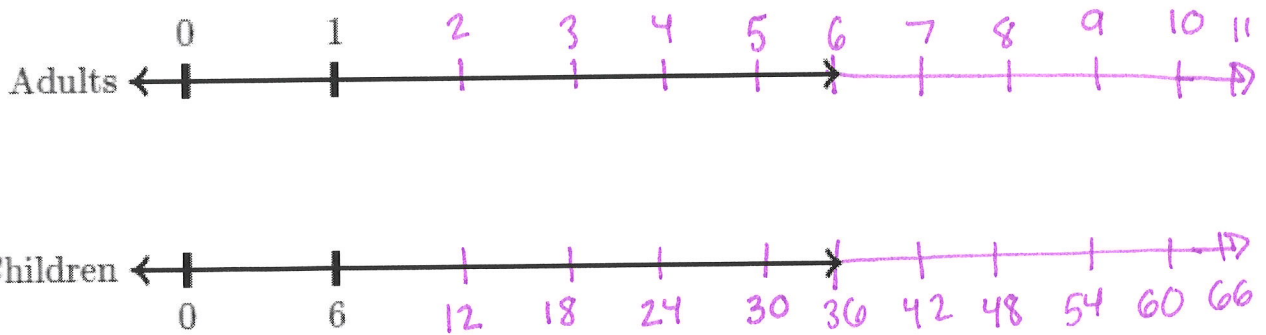


Based on the ratio, how many pepperoni pizzas did they buy if they bought 6 cheese pizzas?

2 pepperoni pizzas

2)

The double number line shows the number of children 1 adult supervises on a field trip.



Complete the table to show the same information as the double number line.

Adults	Children
8	48
11	66
15	90

$10 + 5 = 15$ so $30 + 60 = 90$
or $15 \cdot 6 = 90$

3)

Gary needs 24 screws for every 2 chairs he builds.

Complete the table using equivalent ratios.

Number of chairs	Number of screws
2	24
6	72
9	81 108

Handwritten notes:
Left side: $\cdot 3 \downarrow$ (between 2 and 6), $\cdot 1.5 \downarrow$ (between 6 and 9)
Right side: $\downarrow \cdot 3$ (between 24 and 72), $\downarrow \cdot 1.5$ (between 72 and 108)

4)

Select three ratios that are equivalent to 7 : 6.

Choose 3 answers:

(A) 12 : 14

(B) 21 : 18

(C) 42 : 36

(D) 63 : 54

(E) 84 : 62

$\cdot 3 \downarrow$ $7:6 \rightarrow 21:18 \downarrow \cdot 3$

$\cdot 6 \downarrow$ $7:6 \rightarrow 42:36 \downarrow \cdot 6$

$\cdot 9 \downarrow$ $7:6 \rightarrow 63:54 \downarrow \cdot 9$

~~$84:62$~~
 \downarrow

5)

When Arjun makes hot cocoa, he adds 20 mL of chocolate syrup for every 3 ounces of hot water. Arjun's brother, Eli, adds 45 mL of chocolate syrup for every 6 ounces of hot water.

Which hot cocoa is more chocolatey?

$$\begin{array}{l} 20 \text{ mL} : 3 \text{ oz} \\ \times 2 \rightarrow 40 \text{ mL} : 6 \text{ oz} \end{array} \downarrow \times 2$$

Choose 1 answer:



Arjun's hot cocoa



Eli's hot cocoa



The two cocoas are equally chocolatey.

6)

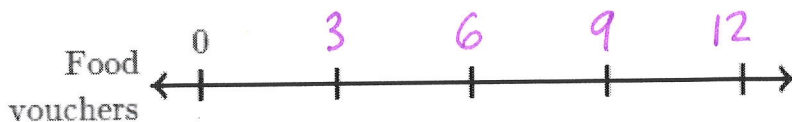
Delilah does 184 jumping jacks in 4 minutes. She does her jumping jacks at a constant rate.

How many jumping jacks can Delilah do per minute?

jumping jacks per minute $184 \div 4 = 46$

7)

For a fundraiser, each donor package contains 3 food vouchers and 5 raffle tickets.



Complete the double number line diagram to show the numbers of food vouchers and raffle tickets in 1, 2, 3, and 4 donor packages.

8)

Kora uses the following ingredients to make 1 s'more.

Ingredient	Amount
Graham crackers	2
Chocolate squares	8
Marshmallows	3

$$\times 10 = 20$$

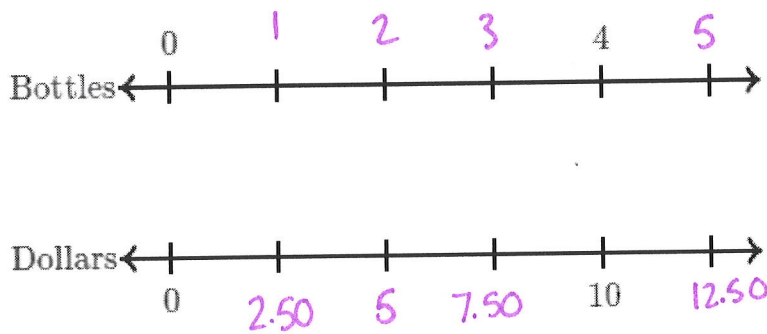
$$20 \div 2 = 10$$

How many s'mores can Kora make if she has 20 graham crackers?

s'mores

9)

The double number line shows that 4 bottles of water cost 10 dollars at a music festival.



Based on the ratio shown in the double number line, how much does 3 bottles of water cost?

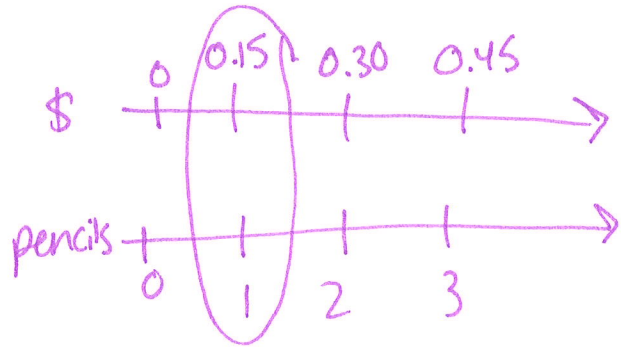
dollars

10) Pencils are on sale: 3 pencils for \$0.45. At this rate, what is the cost per pencil? Use a table, a double number line, or some other strategy. SHOW YOUR WORK.

$$0.45 \div 3 = \$0.15 \text{ per pencil}$$

\$	pencils
0.45	3
0.15	1

$\div 3$ (left of table) $\downarrow \div 3$ (right of table)



11) 5 jumbo cookies cost \$10.75. At this rate, how much do 2 jumbo cookies cost? Use a table, a double number line, or some other strategy. SHOW YOUR WORK.

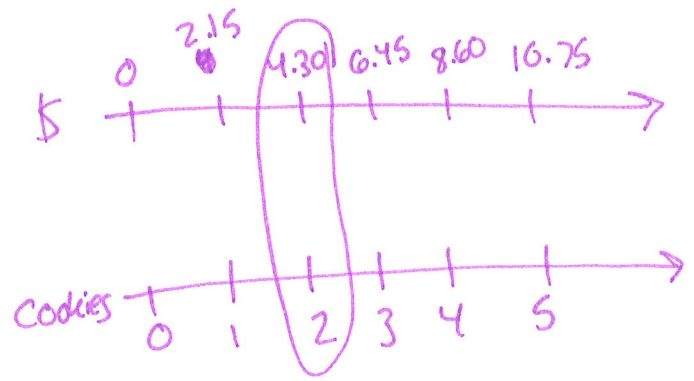
$$10.75 \div 5 = \$2.15 \text{ per cookie}$$

$$(2.15) 2 = \$4.30 \text{ for 2 cookies}$$

\$	pencils cookies
10.75	5
2.15	1
4.30	2

$\div 5$ (left of table) $\downarrow \div 5$ (right of table)

$\times 2$ (left of table) $\downarrow \times 2$ (right of table)

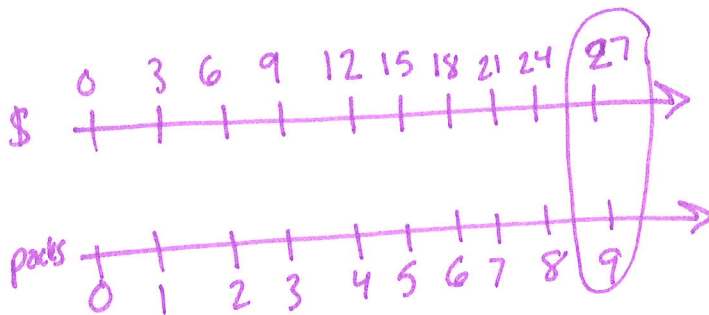


12) Magic The Gathering (MTG) booster packs cost 4 for \$12. At this rate, how much will 9 booster packs cost? Use a table, a double number line, or some other strategy. SHOW YOUR WORK.

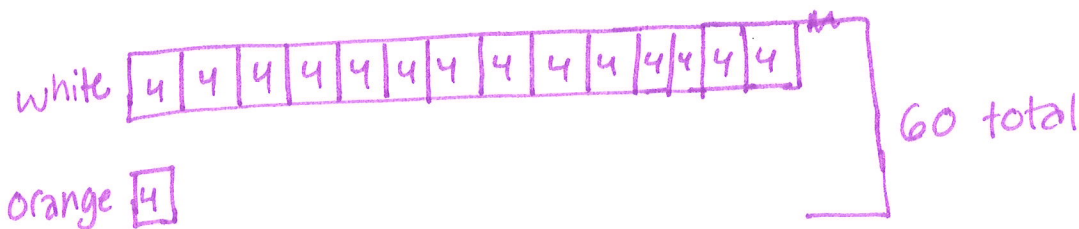
$$12 \div 4 = \$3 \text{ per pack}$$

$$3 \cdot 9 = \$27 \text{ for 9 packs}$$

	\$	packs
$\div 4 \downarrow$	12	4
	3	1
$\cdot 9 \downarrow$	27	9



13) A bag contains 60 Frisbees. Some are white and the rest are orange. There are 14 white Frisbees for every orange Frisbee. How many white Frisbees are there? Use a table, a double number line, or some other strategy. SHOW YOUR WORK.



$$60 \div 15 = 4$$

$$4 \times 14 = 56$$

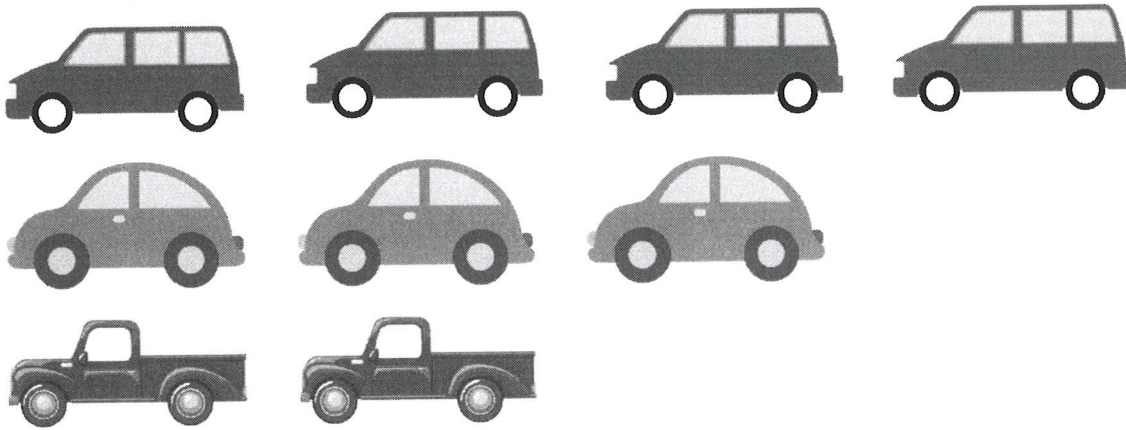
or

$$60 - 4 = 56$$

56 white frisbees

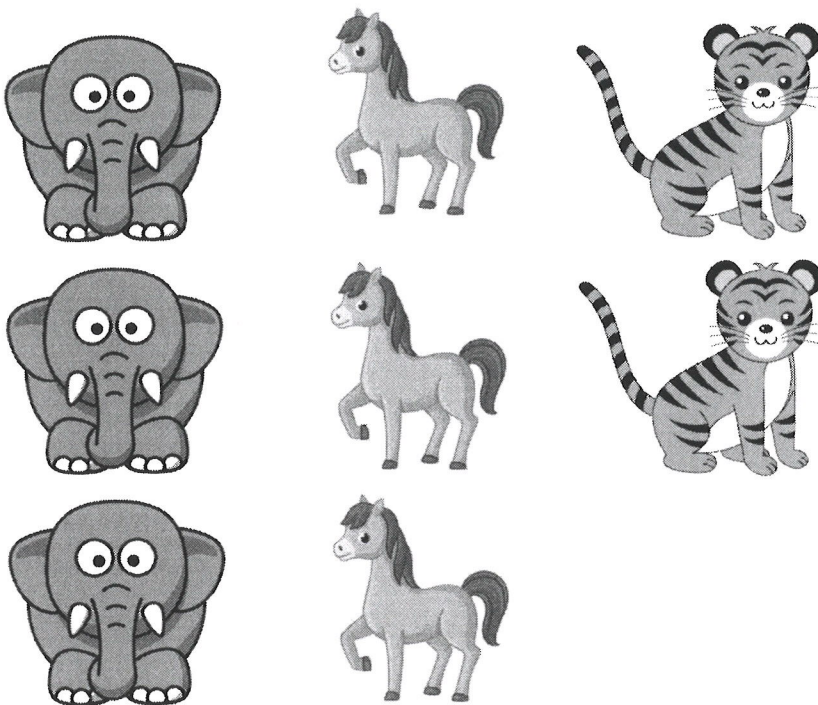
For each set of pictures below, decide which of the ratios are correct to explain the situation.

14)



- a) The ratio of trucks to vans is 1:2.
- b) The ratio of vans to cars is 3:4.
- c) There are 2 vans for every truck.
- d) There are 3 cars for every 4 vans.
- e) The ratio of cars to trucks is 3:2.

15)



- a) The ratio of elephants to tigers is 3:2.
- b) The ratio of horses to elephants is 1:1.
- c) There are 2 elephants for every 3 tigers.
- d) There are 3 horses for every 2 tigers.
- e) The ratio of tigers to horses is 2:3.

You will be graded on the following mathematical practices on your assessment as well. Take time to reflect below on if you showed this on your study guide.

Mathematical Practice	Mastery (3)
<p>CC.MP.1 I can make sense of problems and persevere in solving them (problem-solving). Power Standard: All</p>	<p>On this test, I:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read each problem very carefully. <input type="checkbox"/> Understood what each question was asking. If not, I asked for help. <input type="checkbox"/> Didn't give up when I struggled. <input type="checkbox"/> Showed all my work and answered the question the problem was asking.
<p>CC.MP.6 I can attend to precision (vocabulary, labeling, answers). Power Standard: All</p>	<p>On this test, I:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Took time to calculate accurately. <input type="checkbox"/> Explained my answers using accurate math language. <input type="checkbox"/> Labeled all my answers correctly. For example, 5 oranges + 10 apples = 15 pieces of fruit.

Check over your study guide using your teacher's answer key, then reflect on the following questions.

1) I did well on these areas of the study guide:

2) I still need to work on these areas before the test:

3) My plan to improve between now and the test: