



6×2



5TH GRADE



MATH CLASS



Solving Problems Involving Ratio and Proportion +

WITH TEACHER JADE



8×9



Classroom Rules



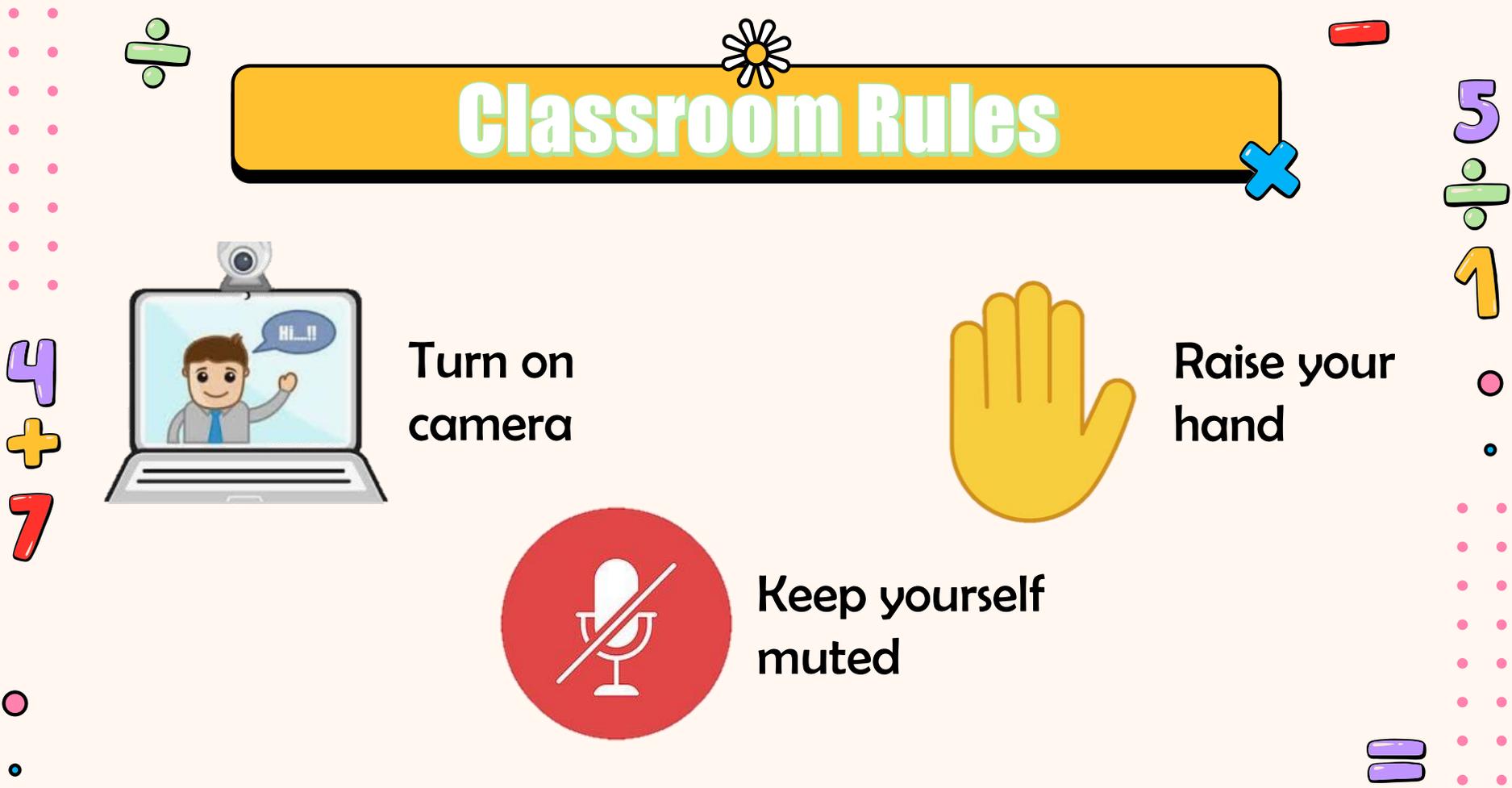
Turn on
camera



Raise your
hand



Keep yourself
muted





LET'S
RECALL

Identify the ratio of the following

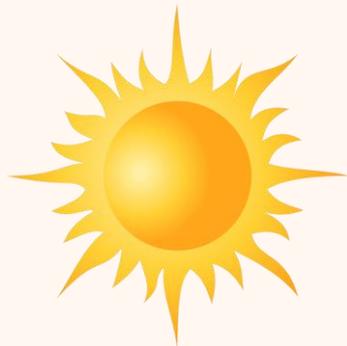
1.



4:5

Identify the ratio of the following

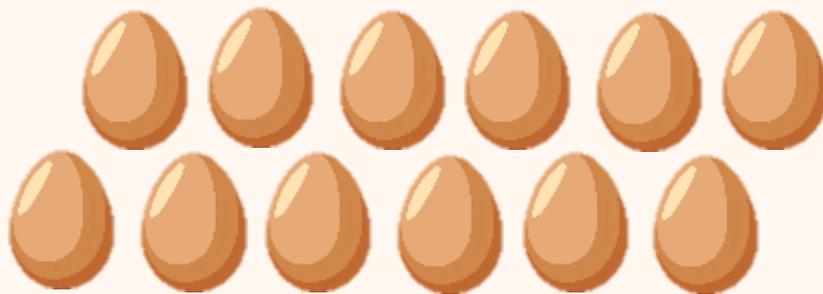
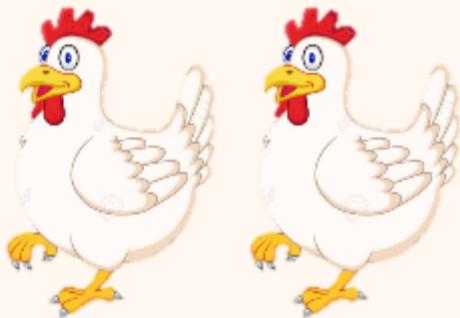
2.



1:3

Identify the ratio of the following

3.



2:12

Identify if the 2 ratios are proportion or not

1. $2:3 = 4:6$

Proportion

2. $6:7 = 3:5$

Nbt Proportion

3. $5:15 = 1:3$

Proportion



20



LET'S CHECK!



12

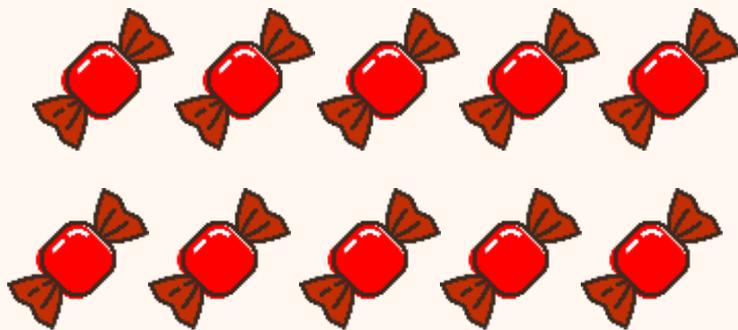
$$2 : 3 = 4 : 6$$

12

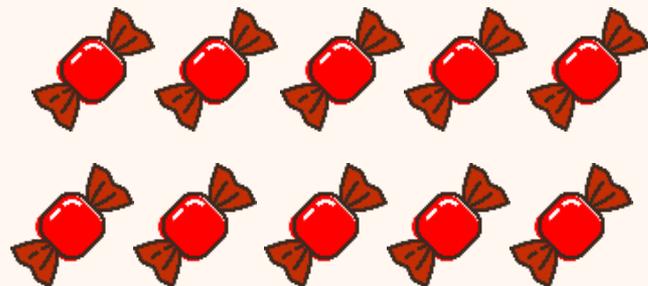


1 x 6

1.



2.



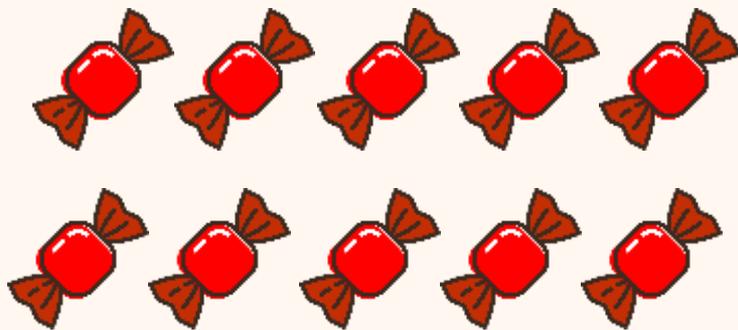
3.



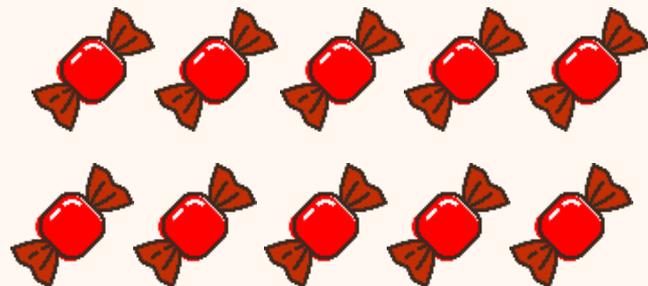
4.



1.



2.



5-7



Direct Proportion



4 ÷ 9

$1 + 3$



Direct Proportion



when two or more quantities
increases or decreases in
the same ratio



$9 \div 3$





The peso-dollar exchange on July 16, 2018 is ₱53.47 for US\$1. If you want to know the amount of money you would receive in exchange for US\$200, use direct proportion.

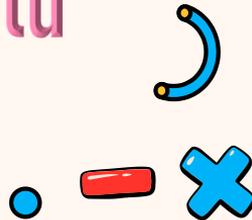


What is the given in the problem?

₱53.47 for every US\$1, US\$200

What is asked?

How much amount of money you would receive in exchange for US\$200?



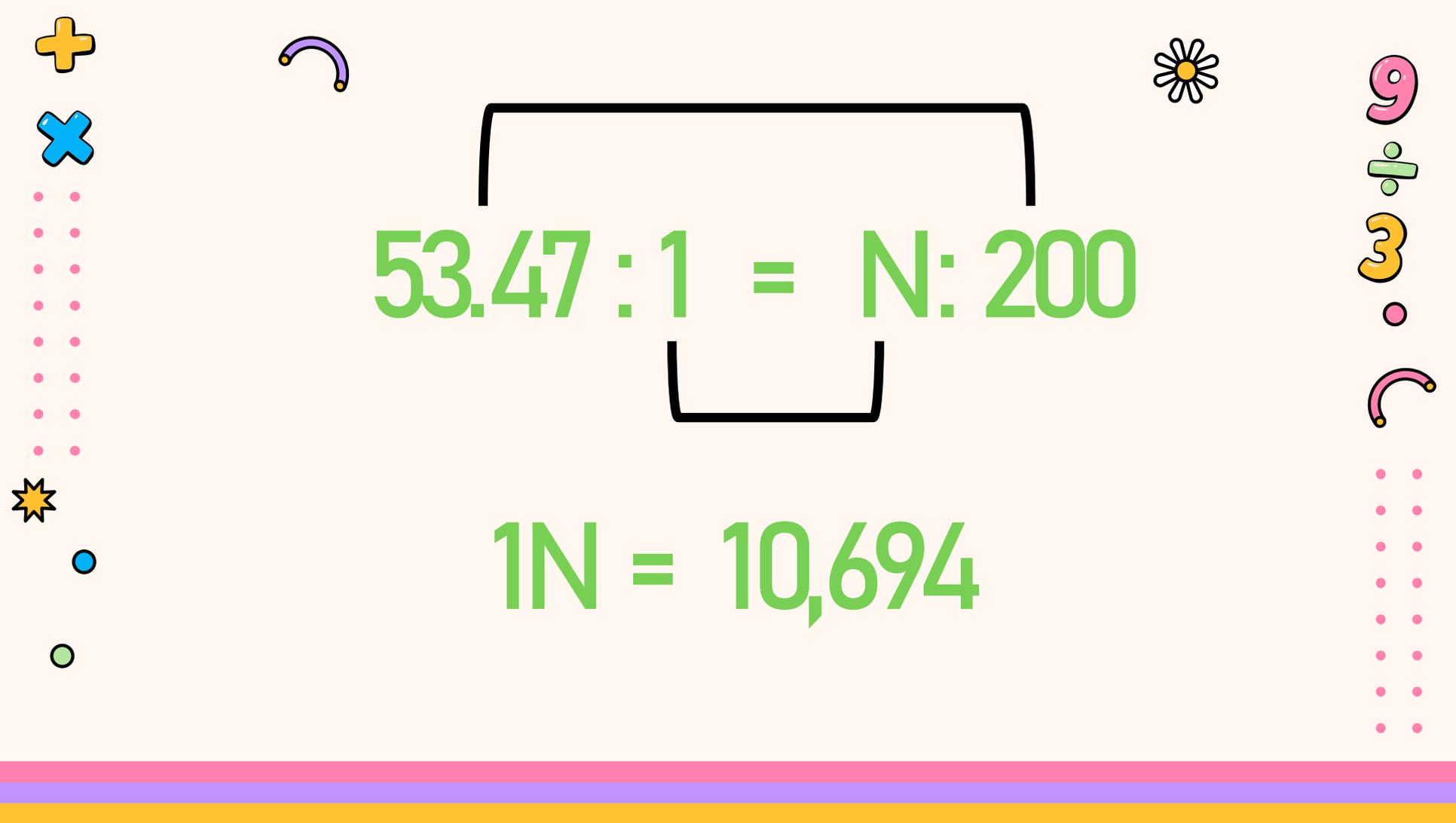


Let N be the amount of money would be receive in exchange.



$$53.47 : 1 = N : 200$$




$$53.47 : 1 = N : 200$$

$$1N = 10,694$$




$$53.47 : 1 = N : 200$$

$$\frac{\cancel{1N}}{\cancel{1}} = \frac{\cancel{10,694}}{\cancel{1}}$$

$$N = 10,694$$



This means that you would get **₱10,694** in exchange for US\$200.

$$53.47 : 1 = N : 200$$

$$53.47 : 1 = 10,694 : 200$$

$$10,694 = 10,694 \quad 4 + 7$$

A car travels 120km in 3hrs. How many km will it cover in 5hrs?





$$120 : 3 = N : 5$$



$$8 \times 9$$





$$120 : 3 = N : 5$$

$$3N = 600$$

$$8 \times 9$$



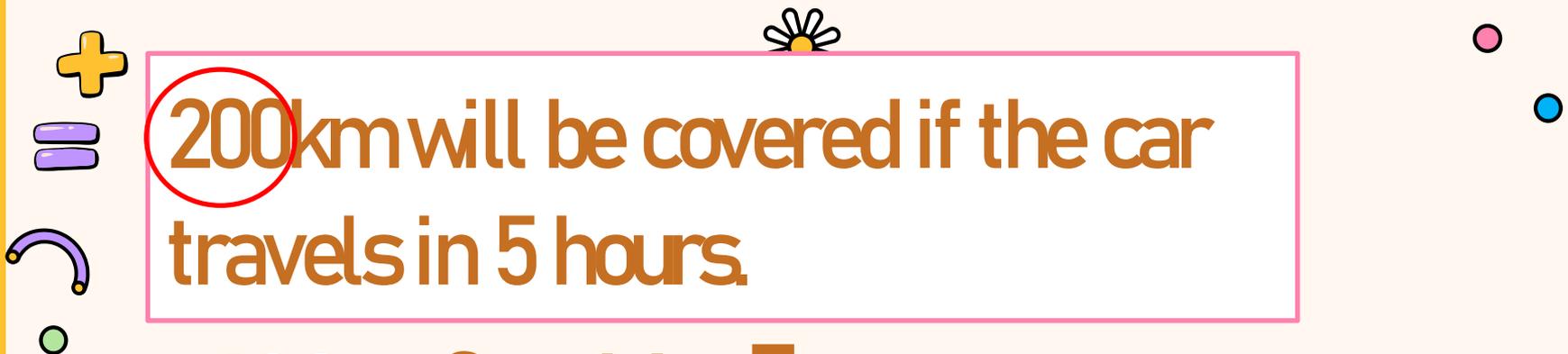


$$120 : 3 = N : 5$$

$$\frac{\cancel{3N}}{\cancel{3}} = \frac{\cancel{600}}{\cancel{3}}$$

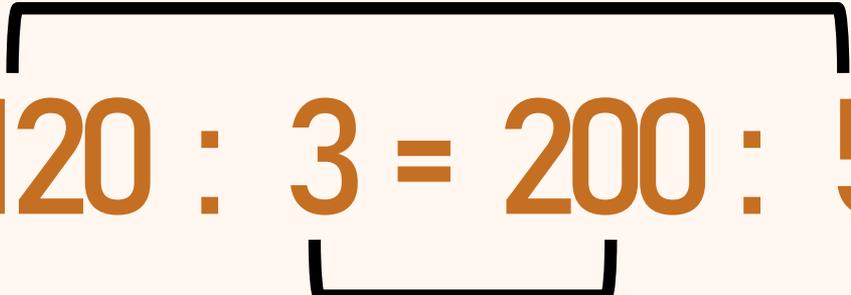
$$N = 200$$

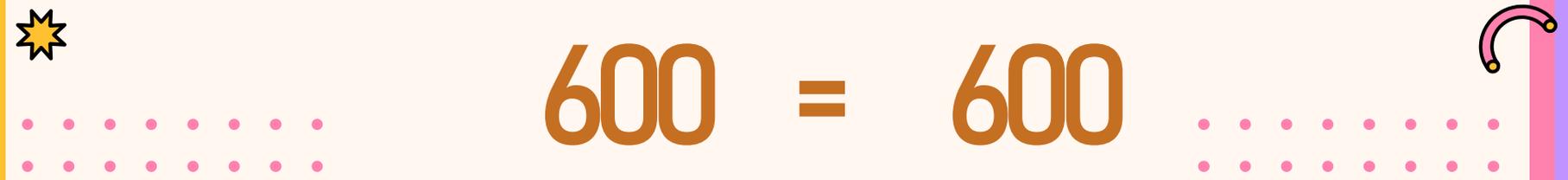


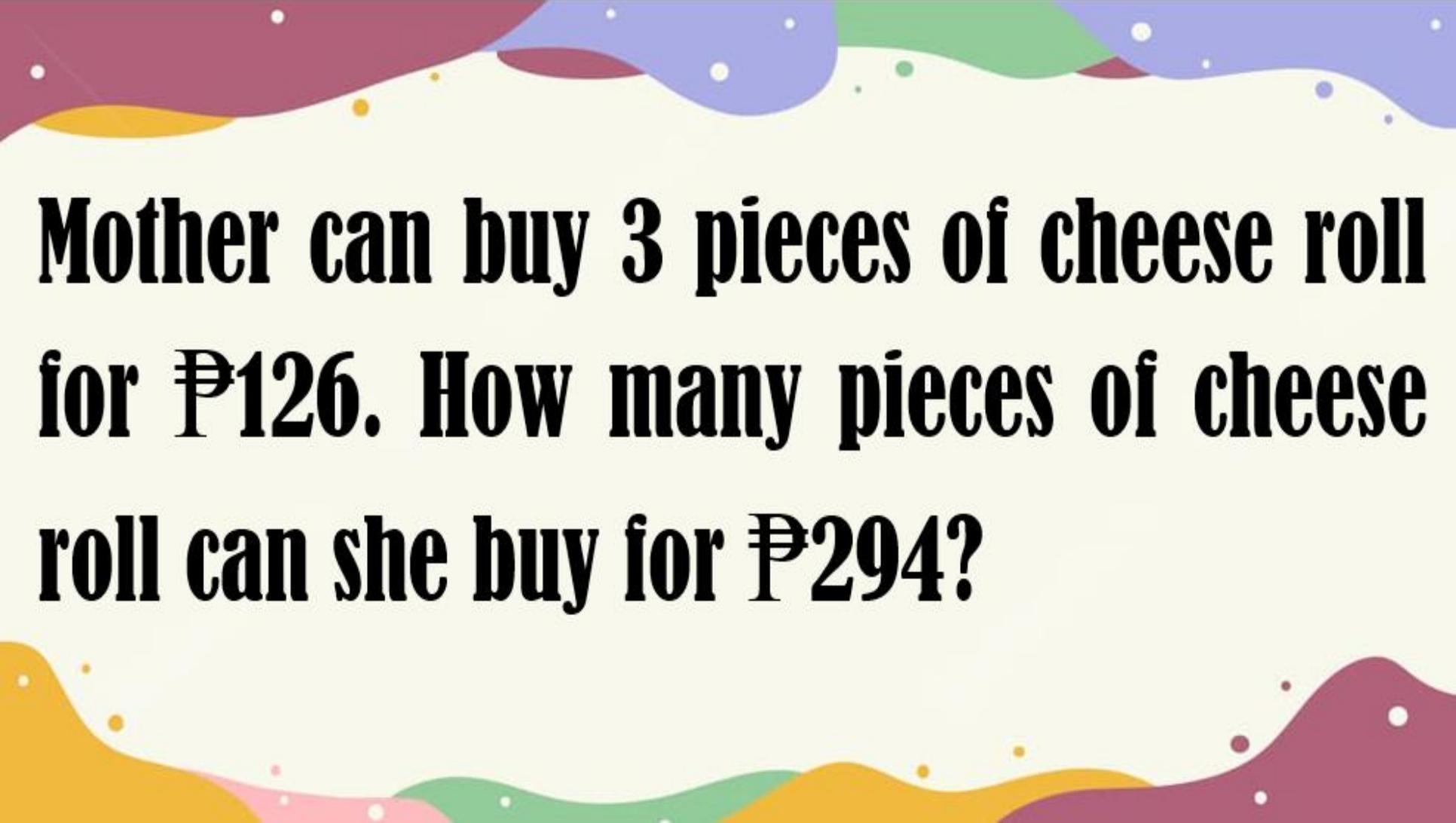


200km will be covered if the car travels in 5 hours.

$$120 : 3 = N : 5$$


$$120 : 3 = 200 : 5$$


$$600 = 600$$



Mother can buy 3 pieces of cheese roll for ₱126. How many pieces of cheese roll can she buy for ₱294?

$$3 : 126 = N : 294$$
$$\frac{3}{126} = \frac{N}{294}$$

1
3



20


$$\frac{3}{126} = \frac{N}{294}$$

$$126N = 882$$

1
3

•

•

•
•
•
•
•
•
•
•
•
•

20

$$\frac{\cancel{126}N}{\cancel{126}} = \frac{\cancel{882}}{\cancel{126}}$$

$$N = 7$$

Mother can buy 7 pieces of cheese rolls for ₱294.

1
3

20

The ratio of the books to
magazines on a shelf is 4 : 8.
There are 20 books. How many
magazines are on the shelf?



..... 8 × 9
.....



There are 40
magazines for
every 20 books on
the shelf.

$$4 : 8 = 20 : N$$

$$\frac{\cancel{160}}{\cancel{4}} = \frac{\cancel{4N}}{\cancel{4}}$$

$$40 = N$$

$$8 \times 9$$



4

+

7



An electric pole, 7 meters high, casts a shadow of 5 meters. Find the height of a tree that casts a shadow of 10 meters under similar conditions.

5



1



=



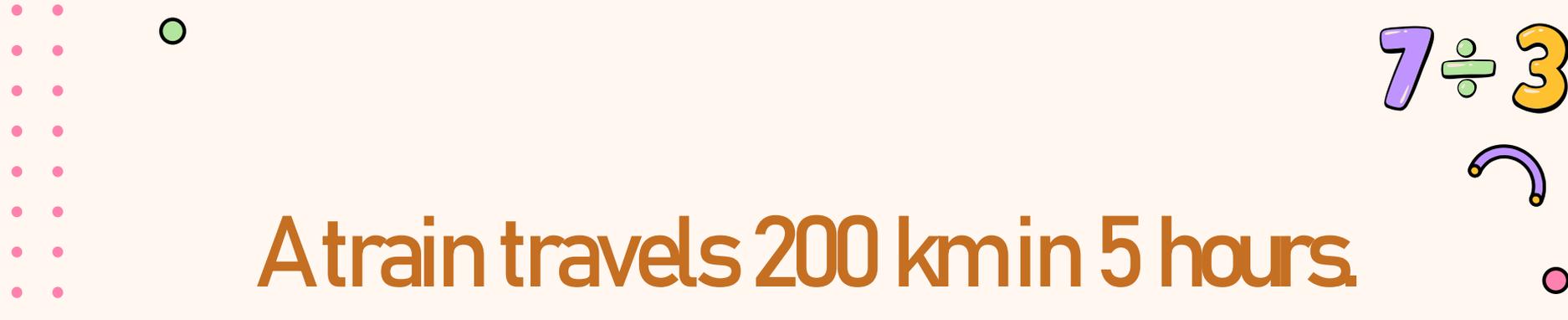
The height of the tree is 14 meters that casts the shadow of 10 meters.

$$7 : 5 = N : 10$$

$$\frac{\cancel{5}N}{\cancel{5}} = \frac{\cancel{70}}{\cancel{5}}$$

$$N = 14$$




$$7 \div 3$$

A train travels 200 km in 5 hours.
How much time it will take to cover
600 km?


$$4 + 7$$

15 hours will be covered to travel 600km

$$N = 15$$

$$4 + 7$$

$$200 : 5 = 600 : N$$

$$\frac{200}{5} = \frac{600}{N}$$

$$\frac{3000}{5} = \frac{200N}{5}$$



5-7



THANK YOU!



4÷9