

ANSWERS

BAR MODELS

Instructions: For each problem, draw a bar model to represent the ratio. Then, solve the problem by determining the value of one part and using it to find the required quantities. Write your answer in the space provided.

- 1) The ratio of pencils to erasers in a box is 7:2. If there are 14 pencils, how many erasers are there?

Bar Model	pencils	
	erasers	

Solution:

Total parts for pencils = 7



Value of one part = $\frac{14 \text{ pencils}}{7} = 2 \text{ pencils per part}$

Total parts for erasers = 2

Number of erasers = $2 \times 2 = 4$

Answers: There are 4 erasers.

- 2) The ratio of boys to girls in a class is 3:4. If there are 21 boys, how many girls are there?

Bar Model	boys	
	girls	

Solution:

Total parts for boys = 3



Value of one part = $\frac{21 \text{ boys}}{3} = 7 \text{ boys per part}$

Total parts for girls = 4

Number of girls = $4 \times 7 = 28$

Answers: There are 28 girls.

- 3) The ratio of blue marbles to green marbles in a jar is 3:4. If there are 9 blue marbles, how many green marbles are there?

Bar Model	Blue Marbles	
	Green Marbles	

Solution:

Total parts for blue marbles = 3

Value of one part = $\frac{9 \text{ blue marbles}}{3} = 3 \text{ marbles per part}$

Total parts for green marbles = 4

Number of green marbles = $4 \times 3 = 12$

Answers: There are 12 green marbles.

How Did You Do? 