

7th Grade Lesson 65

- I can use ratio boxes to organize the data in ratio problems involving totals.
- I can use proportions to solve ratio word problems that involve totals.

The ratio of boys to girls at the assembly was 5 to 4. If there were 180 students in the assembly, how many girls were there?

Pg. 445

	Ratio	Actual Count
boys	5	b
girls	4	g
total	9	180

$$9 \cdot g = 4 \cdot 180$$

$$\frac{9 \cdot g}{9} = \frac{720}{9}$$

$$g = 80$$

~~$\frac{5}{4} = \frac{b}{g}$~~

~~$\frac{4}{9} = \frac{g}{180}$~~

The ratio of football players to soccer players in the room was 5 to 7. If the football and soccer players in the room totaled 48, how many were football players?

Pg. 446

	Ratio	Actual Count
football	5	f
Soccer	7	s
total	12	48

$$\frac{5}{12} = \frac{f}{48}$$

$$5 \cdot 48 = 12 \cdot f$$

$$\frac{240}{12} = \frac{12 \cdot f}{12}$$

$$20 = f$$

20 football players

Acrobats and clowns converged on the center ring in the ratio of 3 to 5. If a total of 72 acrobats and clowns performed in the center ring, how many were clowns?

Practice Set A

	Ratio	Actual Count
acrobats	3	a
Clowns	5	c
total	8	72

$$72 \cdot 5 = 8 \cdot c$$

$$\frac{360}{8} = \frac{8 \cdot c}{8}$$

$$45 = c$$

The ratio of young men to young women at the prom was 8 to 9. If 240 young men were in attendance, how many young people attended in all?

Practice
Set B

	Ratio	Actual Count
men	8	240
women	9	w
total	17	t

$$\frac{8}{17} = \frac{240}{t}$$

$$8 \cdot t = 17 \cdot 240$$

$$\frac{8 \cdot t}{8} = \frac{4080}{8}$$

$$t = 510$$

Assignment:

Problem Set 65