

Example 4

A soccer club has 15 players for every team, with the exception of two teams that have 16 players each. Is the number of players proportional to the number of teams?

# of Teams	1	2	3	4
# of Players	16	32	47	62

$\frac{\# \text{ of Teams}}{\# \text{ of Players}} \rightarrow \frac{16}{1} = \frac{32}{2} \neq \frac{47}{3} \neq \frac{62}{4}$

(no)

YOUR TURN

For Exercises 1-2, use the table of values. Write the ratios in the table to show the relationship between each set of values.

1.

Number of Hours	1	2	3	4
Total Amount Earned	\$15	\$30	\$45	\$60
Ratios	$\frac{15}{1}$ or 15	$\frac{30}{2}$ or 15	$\frac{45}{3}$ or 15	$\frac{60}{4}$ or 15

2.

Number of Packages	1	2	3	4
Total Cost	\$11	\$20	\$29	\$38
Ratios	$\frac{11}{1}$ or 11	$\frac{20}{2}$ or 10	$\frac{29}{3}$ or 9.67	$\frac{38}{4}$ or 9.5

For Exercises 3-4 use the table of values. Write *proportional* or *nonproportional*.

3.

Number of Hours	1	2	3	4
Total Amount Earned	\$0.99	\$1.98	\$2.97	\$3.96

$$\frac{0.99}{1} = \frac{1.98}{2} = \frac{2.97}{3} = \frac{3.96}{4} = \$0.99 \text{ per hour}$$

proportional

4.

Number of Hours	1	2	3	4
Total Amount Earned	\$17.25	\$35.50	\$50.75	\$70

$$\frac{17.25}{1} \neq \frac{35.50}{2} \neq \frac{50.75}{3} \neq \frac{70}{4}$$

nonproportional

5.

Number of Hours	1	2	3	4
Number of Pages Read in Book	37	73	109	145

$$\frac{37}{1} \neq \frac{73}{2} \neq \frac{109}{3} \neq \frac{145}{4}$$

nonproportional