

# Lesson 1 Skills Practice

## Proportional and Nonproportional Relationships

For Exercises 1–3, 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				

2.

Number of Packages	1	2	3	4
Total Cost	\$11	\$20	\$29	\$38
Ratios				

3.

Number of Classrooms	1	2	3	4
Total Students	24	48	72	92
Ratios				

For Exercises 4–8 use the table of values. Write *proportional* or *nonproportional*. If **proportional**, write the constant of proportionality.

4.

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

5.

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

6.

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

7.

Number of Lunches	1	2	3	4
Total Cost	\$2.75	\$5.50	\$8.25	\$11
Reduced Ratio				

8. Fred is ordering pies for a family reunion. Each pie costs \$4.50. For orders smaller than a dozen pies, there is a \$5 delivery charge. Is the cost proportional to the number of pies ordered? Use a table of values to explain your reasoning.

<p>9. <b>SPORTS</b> A touchdown is worth 6 points. Additionally you score an extra point if you can kick a field goal. Is the total number of points scored proportional to the number of touchdowns?</p>	<p>10. <b>RECREATION</b> An outdoor swimming pool costs \$8 per day to visit during the summer. There is also a \$25 yearly registration fee. Is the total cost proportional to the total number of days visited?</p>
<p>11. <b>SCHOOL</b> At a certain middle school, there are 26 students per teacher in every homeroom. Is the total number of students proportional to the number of teachers?</p>	<p>12. <b>TEAMS</b> A baseball club has 18 players for every team, with the exception of four teams that have 19 players each. Is the number of players proportional to the number of teams?</p>
<p>13. <b>MONEY</b> At the beginning of the summer, Conan had \$180 in the bank. Each week he deposits another \$64 that he earns mowing lawns. Is his account balance proportional to the number of weeks since he started mowing lawns?</p>	<p>14. <b>SHELVES</b> A bookshelf holds 43 books on each shelf. Is the total number of books proportional to the number of shelves in the bookshelf?</p>