Homework Practice

Solve and Write Multiplication Equations

Solve each equation. Check your solution.

1. \(7a = 63\)
   \[a = 9\]

2. \(14b = 0\)
   \[b = 0\]

3. \(13w = 39\)
   \[w = 3\]

4. \(55 = 11x\)
   \[x = 5\]

5. \(3v = 42\)
   \[v = 14\]

6. \(96 = 12u\)
   \[u = 8\]

7. \(14u = 70\)
   \[u = 5\]

8. \(3c = 3\)
   \[c = 1\]

9. \(15s = 120\)
   \[s = 8\]

10. \(35q = 5\)
    \[q = \frac{1}{7}\]

11. \(\frac{5}{6}k = \frac{1}{6}\)
    \[k = 1\]

12. \(1\frac{2}{3}j = 15\)
    \[j = 15\times \frac{3}{5}\]

13. \(72 = 0.6r\)
    \[r = 120\]

14. \(0.8b = 1.12\)
    \[b = 1.4\]

15. \(2.3g = 7.13\)
    \[g = 3.1\]

16. \(40 = 1.6m\)
    \[m = 25\]

17. **TIME** The Russian ice breaker *Yamal* can move forward through 2.3-meter-thick ice at a speed of 5.5 kilometers per hour. Write and solve a multiplication equation to find the number of hours it will take to travel 82.5 kilometers through the ice.

\[5.5h = 82.5\]
\[h = \frac{82.5}{5.5} = 15 	ext{ hours}\]

**FUNDRAISING** A school is raising money by selling calendars for $20 each. Mrs. Hawkins promised a party to whichever of her English classes sold the most calendars over the course of four weeks. Use the table to answer Exercises 18–20.

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of Calendars Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Period</td>
<td>60</td>
</tr>
<tr>
<td>2nd Period</td>
<td>123</td>
</tr>
<tr>
<td>3rd Period</td>
<td>89</td>
</tr>
<tr>
<td>4th Period</td>
<td>126</td>
</tr>
</tbody>
</table>

18. Write and solve an equation to show the average number of calendars her 3rd period class sold per week during the four-week challenge.

\[\frac{3c}{4} = \frac{89}{4}\]
\[c = \frac{22.25}{4} = 22.25 \text{ or } 22\frac{1}{4}\]

19. How many calendars did the 1st and 2nd period classes sell on average per week? Write and solve a multiplication equation.

\[1st + 2nd = 60 + 123 = 183\]
\[1st: 4c = 60 \quad c = 15\]
\[2nd: 4c = 123 \quad c = 30.75\]

Both\[4c = 183\]
\[c = 45.75\]

20. What was the average number of calendars sold in a week by all of her classes?

\[c = \text{total of all sold/week}\]
\[\frac{4c}{4} = \frac{398}{4} \quad c = 99 \frac{1}{4}, \quad 99 \frac{3}{4}, \quad \text{or} \quad 99.75\]

For more examples, go to glencoe.com.
Problem-Solving Practice
Solve and Write Multiplication Equations

For Exercises 1-3, use the table below. The table shows the amount of each kind of marine life in Bunito’s saltwater aquarium.

<table>
<thead>
<tr>
<th>Bunito’s Saltwater Aquarium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clown fish</td>
</tr>
<tr>
<td>Sea urchins</td>
</tr>
<tr>
<td>Seahorses 16</td>
</tr>
<tr>
<td>Starfish 9</td>
</tr>
</tbody>
</table>

1. The number of starfish is 3 times the number of clown fish. Write and solve an equation to find how many clown fish are in the aquarium.

\[
3c = 9 \\
\frac{3c}{3} = \frac{9}{3} \\
c = 3
\]

2. The number of sea horses is 4 times the number of sea urchins. Write and solve an equation to find how many sea urchins are in the aquarium.

\[
4u = 16 \\
\frac{4u}{4} = \frac{16}{4} \\
u = 4
\]

3. The total cost of the starfish was $7.20. Write and solve an equation to find how much one starfish cost.

\[
\frac{7.20}{c} = \frac{9}{3} \\
c = \frac{7.20}{3} = 2.40
\]

4. MONEY Paz has $18 in her wallet. This is 3 times the money in her pocket. Write and solve an equation to find how much money Paz has in her pocket.

\[
3p = 18 \\
\frac{3p}{3} = \frac{18}{3} \\
p = 6
\]

5. PAGES Marquis read 230 pages of a novel in 5 hours. Write and solve an equation to find how many pages he read in one hour.

\[
\frac{230}{s} = \frac{p}{5} \\
p = \frac{230s}{5} = 46
\]

6. EXPRESS An express delivery company charges by the pound. A package that weighed 5 pounds cost $24.50 to overnight. Write and solve an equation to find how much the delivery company would charge to overnight a package that weighed 1 pound.

\[
\frac{24.50}{5} = \frac{p}{s} \\
p = \frac{24.50}{5} = 4.90
\]