Name:

4-1 Additional Practice

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In 1–10, tell which given value, if any, is the solution of the equation.

1. $5.6 = l + 4.09$ $l = 0.7, 0.97, 1.51, 9.69$

2. $5k = 65$ $k = 11, 12, 13, 14$

3. $t - \$5.60 = \$1.04$ $t = \$6.00, \$6.10, \$6.64, \$7.00$

4. $133 \div y = 19$ $y = 6, 7, 8, 9$

5. $14 = \frac{u}{6}$ $u = 78, 81, 84, 90$

6. $9 + a = 46$ $a = 37, 39, 41, 55$

7. $6.8 = 2.89 + m$ $m = 3.9, 3.91, 4, 4.11$

8. $8c = 64$ $c = 6, 7, 8, 9$

9. $d \div 5.20 = 2.40$ $d = 10.92, 16.12, 17.68$

NONE

10. $m - 63.28 = 14.92$ $m = 77.86, 78.15, 79.20$

NONE

11. Anton walked 8.9 miles of his 13.5-mile goal for this week. Use the equation $m + 8.9 = 13.5$ to find which path Anton should walk so that he meets his goal for the week.

OAK TREE PATH

Path Lengths	
Meadow Path	3.2 miles
Circle Path	4.2 miles
Oak Tree Path	4.6 miles

12. Brandon has 132 petunia plants and 6 planters. He and his helpers will put x plants in each planter and have none left over. Which of Brandon's three helpers, if any, correctly guessed how many plants are to be planted in each planter? Use the equation $6x = 132$.

NONE

Helper	Guess
Troy	20 plants
Bethany	25 plants
Lacy	30 plants

Name: _____

4-3 Additional Practice

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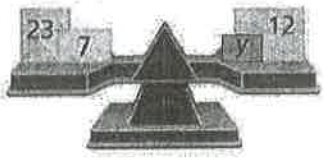
In 1 and 2, write an equation and solve for the variable.

1. 

$12+y=30$
$-12\ \ -12$
$y=18$

2. 

$18+a=24$
$-18\ \ -18$
$a=6$

In 3–8, solve each equation.

3. $g-8=25$
$+8\ \ +8$
$g=33$

4. $25+y=42$
$-25\ \ -25$
$y=17$

5. $r+82=97$
$-82\ \ -82$
$r=15$

6. $30=m-18$
$+18\ \ +18$
$m=48$

7. $150=e+42$
$-42\ \ -42$
$e=108$

8. $a-51=12$
$+51\ \ +51$
$a=63$

9. Only 12 students can be in the next school play. Let t represent the number of students who tried out for the play. The number of students who tried out but did not get a role is 42.

a. Explain how the bar diagram and the equation $t-12=42$ model this situation.

TOTAL − PART = OTHER PART

b. Solve the equation to find the total number of students who tried out for the play.

$t-12=42$
$+12\ \ +12$
$t=54$ STUDENTS

10. Shree writes the equation $x+7=28$. What should Shree do to find the value of x?

SUBTRACT 7 FROM BOTH SIDES

11. Krystal says that you need to add to solve the subtraction equation $y-11=52$. Is Krystal correct? Explain.

YES. ADDITION IS THE INVERSE OF MULTIPLICATION

Name: _____

PRACTICE TUTORIAL

4-4 Additional Practice

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In 1–4, explain how to isolate the variable in each equation.

1. $81 = \frac{m}{9}$
   × 9 × 9
   $m = 729$

2. $h \div 3 = 12$
   × 3 × 3
   $h = 36$

3. $4r = 20$
   $\frac{4r}{4} = \frac{20}{4}$
   $r = 5$

4. $34 = 17b$
   $\frac{34}{17} = \frac{17b}{17}$
   $b = 2$

In 5–12, solve each equation.

5. $\frac{t}{35} = 42$
   × 35 × 35
   $t = 1470$

6. $1 = \frac{u}{2}$
   × 2 × 2
   $u = 2$

7. $7s = 245$
   $\frac{7s}{7} = \frac{245}{7}$
   $s = 35$

8. $600a = 2{,}400$
   $\frac{600a}{600} = \frac{2{,}400}{600}$
   $a = 4$

9. $936 = 78p$
   $\frac{936}{78} = \frac{78p}{78}$
   $p = 12$

10. $29 = k \div 5$
    × 5 × 5
    $k = 145$

11. $16d = 2{,}864$
    $\frac{16d}{16} = \frac{2{,}864}{16}$
    $d = 179$

12. $180 = \frac{g}{12}$
    × 12 × 12
    $g = 2160$

In 13 and 14, write ~~a division equation and a multiplication~~ the correct equation equation to represent each problem.

13. Gillian read 3,135 words in 19 minutes. Let w represent the number of words read each minute. If Gillian read the same number of words each minute, how many words did she read in 1 minute?

    $\frac{19w}{19} = \frac{3135}{19}$
    $w = 165$ wpm

14. Colin is a math tutor. He charges the same amount, s, for every tutoring session. After 21 sessions he has earned $1,575. How much does Colin charge for one tutoring session?

    $\frac{21s}{21} = \frac{1575}{21}$
    $s = \$75$

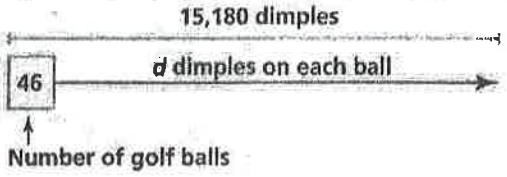
In 15–17, solve each division equation and use a multiplication equation to check your answer.

15. $9{,}522 \div 9 = k$

16. $7{,}848 \div w = 36$

17. $56{,}259 \div 57 = i$

18. **Model with Math** The 46 golf balls in Stavin's golf bag have 15,180 dimples on them. Each golf ball has the same number of dimples. Use the bar diagram to write and solve an equation to find the number of dimples on each ball in Stavin's bag. MP.4



$\frac{46d}{46} = \frac{15{,}180}{46}$
$d = 330$ dimples per ball

Name:

4-5 Additional Practice

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Leveled Practice In 1–12, solve each equation.

1. $t + 5.4 = 9.01$

$t + 5.4 - 5.4 = 9.01 - 5.4$

$t = 48.654$

2. $\frac{3}{4}x = 2$

$\frac{4}{3} \cdot \frac{3}{4}x = \frac{4}{3} \cdot 2$

$x = \frac{8}{3}$ or $2\frac{2}{3}$

3. $s + \frac{1}{4} = 12\frac{1}{2}$

$-\frac{1}{4} \quad -\frac{1}{4}$

$s = 12\frac{1}{4}$

4. $2\frac{2}{3} + y = 4\frac{1}{4}$

$-2\frac{2}{3} \quad -2\frac{2}{3}$

$y = 1\frac{7}{12}$

5. $a - 4\frac{3}{8} = 2\frac{1}{2}$

$+4\frac{3}{8} \quad +4\frac{3}{8}$

$a = 6\frac{7}{8}$

6. $\frac{2}{7}q = 3$

$\frac{7}{2} \cdot \frac{2}{7}q = \frac{7}{2} \cdot 3$

$q = 10\frac{1}{2}$

7. $9\frac{1}{12} = \frac{k}{9}$

$\times 9 \quad \times 9$

$k = 81\frac{3}{4}$

8. $k + 24.75 = 36.12$

$-24.75 \quad -24.75$

$k = 11.37$

9. $12.85 = x - 4.34$

$+4.34 \quad +4.34$

$x = 17.19$

10. $15.95 = 3.19n$

$\frac{15.95}{3.19} = \frac{3.19n}{3.19}$

$n = 5$

11. $t - \frac{2}{3} = \frac{5}{6}$

$+\frac{2}{3} \quad +\frac{2}{3}$

$t = 1\frac{1}{2}$

12. $\frac{7}{10}c = 4\frac{1}{5}$

$\frac{10}{7} \cdot \frac{7}{10}c = \frac{10}{7} \cdot \frac{21}{5}$

$c = 6$

13. In a 400-meter relay race, 4 runners pass a baton as each of them runs 100 meters of the race. The table shows the split times for the first 3 runners of a relay team. Suppose the team has set a goal of running the race in 210 seconds. Solve the equation $(53.715 + 51.3 + 52.62) + n = 210$ to find the number of seconds, n, within which the 4th runner must finish for the team to meet its goal.

400-Meter Relay Team Split Times (seconds)	
1st runner	53.715
2nd runner	51.3
3rd runner	52.62
4th runner	n

$53.715 + 51.3 + 52.62 + n = 210$

$157.635 + n = 210$

$-157.635 \quad -157.635$

$n = 52.365$ SEC