

Step 2: Find the number of people in the year.

$$\begin{array}{r} \overset{2}{\underset{1}{\times}} 673 \\ \times 312 \\ \hline 1346 \\ 6730 \\ + 201900 \\ \hline 209,976 \text{ people} \end{array}$$

**Lesson Practice 56**

a. 56,160;

$$\begin{array}{r} \overset{1}{\times} 234 \\ \times 240 \\ \hline 9360 \\ + 46800 \\ \hline 56160 \end{array}$$

← We multiply by the 40 in 240  
← Then we multiply by 200 of 240  
← We add the two partial products to find the total product.

b. \$300.00;

$$\begin{array}{r} \overset{1}{\underset{2}{\times}} \$1.25 \\ \times 240 \\ \hline 5000 \\ + 250 \\ \hline \$300.00 \end{array}$$

c. 27,600;

$$\begin{array}{r} 230 \\ \times 120 \\ \hline 4600 \\ + 23000 \\ \hline 27600 \end{array}$$

← We multiply by 20 in 120  
← We multiply by 100 of 120  
← We add the two partial products to find the total product.

d. 36,480;

$$\begin{array}{r} 304 \\ \times 120 \\ \hline 6080 \\ + 30400 \\ \hline 36480 \end{array}$$

← We multiply by 20 in 120  
← We multiply by 100 of 120  
← We add the two partial products to find the total product.

e. 47,736;

$$\begin{array}{r} \overset{11}{\underset{1}{\times}} 234 \\ \times 204 \\ \hline 936 \\ + 4680 \\ \hline 47736 \end{array}$$

f. \$255.00;

$$\begin{array}{r} \overset{1}{\underset{2}{\times}} \$1.25 \\ \times 204 \\ \hline 500 \\ + 2500 \\ \hline \$255.00 \end{array}$$

g. 23,460;

$$\begin{array}{r} 230 \\ \times 102 \\ \hline 460 \\ + 2300 \\ \hline 23460 \end{array}$$

h. 31,008;

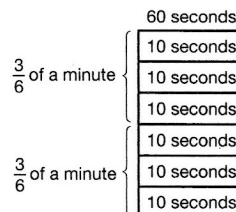
$$\begin{array}{r} 304 \\ \times 102 \\ \hline 608 \\ + 3040 \\ \hline 31008 \end{array}$$

**Written Practice 56**

1. \$11; \$30 + (\$12 + \$7)

$$\$30 - \$19 = \$11$$

2. 30 seconds;  $3 \times 10 = 30$  seconds;



3. 80 blocks; sample: I used the Commutative Property and multiplied; 8 (blocks)  $\times$  2 (trips)  $\times$  5 (days)

4. 46 students; Step 1: First find the total number of students.

$$36 + 29 + 73 = 138 \text{ students}$$

Step 2: Divide the total by 3 to find the equal number for each bus.

$$138 \div 3 = 46 \text{ students}$$

5. 5; moving from right to left, the pattern of ones, tens, hundreds continues through the thousands, and ten-thousands. The digit in the ten-thousands place is 5.

6. 10 in.;  $5 \times 2 = 10$  in.; the diameter is twice the radius.

7. 345,614,784

8. 60 mm;

$$P = 2l + 2w = 2(20 \text{ mm}) + 2(10 \text{ mm})$$

$$40 \text{ mm} + 20 \text{ mm} = 60 \text{ mm}$$

9. 36,000;

$$\begin{array}{r} 900 \\ \times 40 \\ \hline 36,000 \end{array}$$

10. 280,000;

$$\begin{array}{r} 700 \\ \times 400 \\ \hline 280,000 \end{array}$$

11. 74,880;

$$\begin{array}{r} 234 \\ \times 320 \\ \hline 4680 \\ + 70200 \\ \hline 74,880 \end{array}$$

← First multiply by 20 of 320  
 ← Then multiply by 300 of 320  
 ← Add the partial products to find the total

12. \$700.35;

$$\begin{array}{r} \$3.45 \\ \times 203 \\ \hline 1085 \\ + 6900 \\ \hline \$700.35 \end{array}$$

13. 180,648;

$$\begin{array}{r} 468 \\ \times 386 \\ \hline 2808 \\ 37440 \\ + 140400 \\ \hline 180,648 \end{array}$$

14. 30;  $5 \times 6 = 30$

15. 719 R 3;

$$\begin{array}{r} 719 \text{ R } 3 \\ 6 \overline{)4317} \\ -42 \\ \hline 11 \\ -6 \\ \hline 57 \\ -54 \\ \hline 3 \end{array}$$

16. 300 R 3;

$$\begin{array}{r} 300 \text{ R } 3 \\ 9 \overline{)2703} \\ -27 \\ \hline 00 \\ -0 \\ \hline 03 \\ -0 \\ \hline 3 \end{array}$$

17. \$10.76;  $m = \frac{\$86.08}{8}$ ;

$$\begin{array}{r} \$10.76 \\ 8 \overline{) \$86.08} \\ -8 \\ \hline 06 \\ -0 \\ \hline 60 \\ -56 \\ \hline 48 \\ -48 \\ \hline 0 \end{array}$$

18. 162,664;

$$\begin{array}{r} 31 \ 22 \\ 79,089 \\ \times 37,865 \\ \hline 29,453 \\ + 16,257 \\ \hline 162,664 \end{array}$$

19. 10,757;

$$\begin{array}{r} 2 \ 11 \\ 43,218 \\ - 32,461 \\ \hline 10,757 \end{array}$$

20. \$95.44;

$$\begin{array}{r} 99 \ 91 \\ \$100.00 \\ - \$4.56 \\ \hline \$95.44 \end{array}$$

21. 2;  $3\frac{5}{6} - 1\frac{5}{6} = 2$

22.  $10\frac{1}{8}$ ;  $4\frac{1}{8} + 6 = 10\frac{1}{8}$

23. 24 days; there are 7 days in one week.

$$(3 \times 7) + 3 \\ 21 + 3 = 24 \text{ days}$$

24. C; the arrow C is pointing just past 1360 on the number line, so this arrow is closest to where 1362 would be.

25. Seven and one tenth

26.  $150 \times 203$  or  $(150 \times 200) + (150 \times 3)$ ;  
 $30,000 + 450 = 30,450$

27. a. C

b. Sample: A sum of digits is not divisible by 9; B does not end with 5; C sum of digits is divisible by 3; D not an even number

28. a. 25 small squares;  $100 \div 4 = 25$

b. 0.25

29. 38 in.; placing  $37\frac{3}{4}$  inches on the number line, we see that it falls between 37 inches and 38 inches. Since  $37\frac{3}{4}$  inches is nearer to 38 than to 37 we round up to 38.

30. a. Each ball has 392 dimples;

Number of Golf Balls	1	2	3	4
Number of Dimples	392	784	1176	1568

b. 4,704 dimples;

$$\begin{array}{r} 392 \\ \times 12 \\ \hline 784 \\ + 3920 \\ \hline 4,704 \text{ dimples} \end{array}$$

**Early Finishers**

a. \$1787.50;

$$\begin{array}{r} 1\frac{1}{2} \\ 325 \\ \times \$5.50 \\ \hline 16250 \\ + 162500 \\ \hline \$1787.50 \end{array}$$

b. \$17,875;

$$\begin{array}{r} \$1787.50 \\ \times 10 \\ \hline \$17,875.00 \end{array}$$

**Lesson Practice 57**

- 1, 2, 3, 4, 5
- $\frac{1}{5}$
- $\frac{2}{5}$
- $\frac{2}{5}$
- Not to rain
- $100\% - 20\% = 80\%$
- Agree; five of the 10 marbles are red, so the probability of picking a red marble is  $\frac{5}{10}$  which is a fraction equal to  $\frac{1}{2}$ .
- D

**Written Practice 57**

- 64 inches;  $(5 \times 12) + 4$   
 $60 + 4 = 64$  inches
  - 1000 years;  $10 \times 100$  years = 1000 years
  - Circumference
  - Ten and seven tenths
  - 40 minutes;  $20 \times 2 = 40$  minutes;  
40 minutes;
- |  |            |
|--|------------|
| $\frac{2}{3}$ of an hour<br>$\frac{1}{3}$ of an hour | 60 minutes |
|  | 20 minutes |
|  | 20 minutes |

- 7 hours; from 11 p.m. to midnight is 1 hour, from midnight to 6 a.m. is 6 hours,  
 $1 + 6 = 7$  hours

7. 48;  $\frac{\text{dividend}}{4} = 12$   
dividend =  $12 \times 4 = 48$

- hundred thousands; the value of a digit depends upon its place in the number. Here the 0 means hundred thousands.

- 1, 5  
The factors of 15 are 1, 3, 5, and 15.  
The factors of 20 are 1, 2, 4, 5, 10, and 20.  
The factors of 15 that are also the factors of 20 are 1 and 5.

10. 18 cm;  $6 \times 3 = P$

11. 0;  $3\frac{2}{3} - (2\frac{1}{3} + 1\frac{1}{3})$   
 $3\frac{2}{3} - 3\frac{2}{3} = 0$

12.  $4\frac{2}{3}$ ;  $3\frac{1}{3} + (2\frac{2}{3} - 1\frac{1}{3})$   
 $3\frac{1}{3} + 1\frac{1}{3} = 4\frac{2}{3}$

13. \$0.13;

$$\begin{array}{r} \$0.13 \\ 40 \overline{) \$5.20} \\ \underline{-0} \phantom{00} \\ 52 \phantom{0} \\ \underline{-40} \phantom{0} \\ 120 \\ \underline{-120} \\ 0 \end{array}$$

14. 395 R 1;

$$\begin{array}{r} 395 \text{ R } 1 \\ 8 \overline{) 3161} \\ \underline{-24} \phantom{00} \\ 76 \phantom{0} \\ \underline{-72} \phantom{0} \\ 41 \phantom{0} \\ \underline{-40} \phantom{0} \\ 1 \end{array}$$

15. 3

16. \$14.36;

$$\begin{array}{r} 3\frac{1}{2} \text{ } 10 \\ \$43.15 \\ - \$28.79 \\ \hline \$14.36 \end{array}$$

17. 127,746;

$$\begin{array}{r} 423 \\ \times 302 \\ \hline 846 \\ + 12690 \\ \hline 127,746 \end{array}$$

$$\begin{array}{r}
 18. \ 431; \quad \begin{array}{r} 4 \\ 99 \\ 36 \\ 42 \\ 75 \\ 64 \\ 98 \\ + 17 \\ \hline 431 \end{array}
 \end{array}$$

$$\begin{array}{r}
 19. \ \$1242.00; \quad \begin{array}{r} 1 \quad 1 \\ 2 \quad 3 \\ \$3.45 \\ \times 360 \\ \hline 20700 \\ + 1035 \\ \hline \$1242.00 \end{array}
 \end{array}$$

$$\begin{array}{r}
 20. \ 361,192; \quad \begin{array}{r} 3 \quad 3 \quad 3 \\ 604 \\ \times 598 \\ \hline 4832 \\ 54360 \\ + 302000 \\ \hline 361,192 \end{array}
 \end{array}$$

$$21. \ \frac{1}{10}; \frac{10}{10} - \frac{9}{10} = \frac{1}{10}$$

$$22. \ 4\frac{1}{3}; 4\frac{2}{3} - \frac{1}{3} = 4\frac{1}{3}$$

$$23. \ 4\frac{1}{2}; 5\frac{2}{2} - 1\frac{1}{2} = 4\frac{1}{2}$$

24. 15 months

25. 1:35 p.m.;  $11:15 + 2:20 = 13:35$ , which is 1:35 p.m.

26. a. 1000 years

b. 500 years;  $1000 \div 2 = 500$  years

$$c. \ \frac{500}{1000}$$

$$27. \ \frac{5}{6}$$

28. 85; Step 1: Find the total of all three tests.  
 $80 + 80 + 95 = 255$

Step 2: Divide the total by 3 to find the average.

$$255 \div 3 = 85$$

29. 75%;  $100\% - 25\% = 75\%$

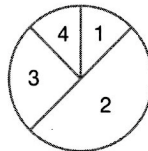
30. 45; Step 1: First find Leif's mom's age when he is 10.

$$10 \times 4 = 40 \text{ years old}$$

Step 2: Find her age when Leif is 15 by adding 5 years to her previous age.  
 $40 + 5 = 45$  years old

### Early Finishers

a.



b. 5 times;  $20 \div 4 = 5$  times; 10 more spins is a quarter of 40 spins, so find a quarter of the times it landed on sector 2.

### Lesson Practice 58

$$\begin{array}{r}
 a. \ 4\frac{1}{4}; \quad \begin{array}{r} 4\frac{1}{4} \\ 4 \overline{)17} \\ -16 \\ \hline 1 \end{array}
 \end{array}$$

$$\begin{array}{r}
 b. \ 6\frac{2}{3}; \quad \begin{array}{r} 6\frac{2}{3} \\ 3 \overline{)20} \\ -18 \\ \hline 2 \end{array}
 \end{array}$$

$$\begin{array}{r}
 c. \ 3\frac{1}{5}; \quad \begin{array}{r} 3\frac{1}{5} \\ 5 \overline{)16} \\ -15 \\ \hline 1 \end{array}
 \end{array}$$

$$\begin{array}{r}
 d. \ 9\frac{4}{5}; \quad \begin{array}{r} 9\frac{4}{5} \\ 5 \overline{)49} \\ -45 \\ \hline 4 \end{array}
 \end{array}$$

$$\begin{array}{r}
 e. \ 5\frac{1}{4}; \quad \begin{array}{r} 5\frac{1}{4} \\ 4 \overline{)21} \\ -20 \\ \hline 1 \end{array}
 \end{array}$$

$$\begin{array}{r}
 f. \ 4\frac{9}{10}; \quad \begin{array}{r} 4\frac{9}{10} \\ 10 \overline{)49} \\ -40 \\ \hline 9 \end{array}
 \end{array}$$

$$\begin{array}{r}
 g. \ 12\frac{5}{6}; \quad \begin{array}{r} 12\frac{5}{6} \\ 6 \overline{)77} \\ -6 \\ \hline 17 \\ -12 \\ \hline 5 \end{array}
 \end{array}$$

# Solutions

h.  $4\frac{3}{10}$ ;

$$\begin{array}{r} 4\frac{3}{10} \\ 10\overline{)43} \\ \underline{-40} \\ 3 \end{array}$$

i.  $3\frac{7}{8}$ ;

$$\begin{array}{r} 3\frac{7}{8} \\ 8\overline{)31} \\ \underline{-24} \\ 7 \end{array}$$

## Written Practice

58

1. \$2.20; Step 1: Find the amount he spent on the cards.

$$\begin{array}{r} \$0.35 \\ \times 8 \\ \hline \$2.80 \end{array}$$

Step 2: Find how much change he should receive.

$$\begin{array}{r} \$5.00 \\ - \$2.80 \\ \hline \$2.20 \end{array}$$

2.  $5\frac{1}{4}$  inches;

$$\begin{array}{r} 5\frac{1}{4} \text{ inches} \\ 4\overline{)21} \\ \underline{-20} \\ 1 \end{array}$$

3. 60 stamps; 60%;  $20 \times 3 = 60$  stamps; 60%;

100 stamps	
T'Leesha used $\frac{3}{5}$	20 stamps
	20 stamps
	20 stamps
T'Leesha did not use $\frac{2}{5}$	20 stamps
	20 stamps

4. 1800; placing 1776 on the number line, we see that it falls between 1700 and 1800. Since 1776 is nearer to 1800 than to 1700 we round up to 1800.

5. A

6. 40 mm;

$$p = 2l + 2w = 2(12 \text{ mm}) + 2(8 \text{ mm})$$

$$24 \text{ mm} + 16 \text{ mm} = 40 \text{ mm}$$

7. 21 R 10;

$$\begin{array}{r} 21 \text{ R } 10 \\ 30\overline{)640} \\ \underline{-60} \\ 40 \\ \underline{-30} \\ 10 \end{array}$$

8. 23 R 2;

$$\begin{array}{r} 23 \text{ R } 2 \\ 40\overline{)922} \\ \underline{-80} \\ 122 \\ \underline{-120} \\ 2 \end{array}$$

9. 16;  $w = \frac{800}{50}$ ;

$$\begin{array}{r} 16 \\ 50\overline{)800} \\ \underline{-50} \\ 300 \\ \underline{-300} \\ 0 \end{array}$$

10. 5800;

$$\begin{array}{r} 5800 \\ 61\overline{)7200} \\ \underline{-1400} \\ 5800 \end{array}$$

11. \$100;

$$\begin{array}{r} \$1.25 \\ \times 80 \\ \hline \$100.00 \end{array}$$

12. 70;

$$\begin{array}{r} 70 \\ 10\overline{)700} \\ \underline{-70} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

13. 332,031;

$$\begin{array}{r} 332,031 \\ \times 489 \\ \hline 6111 \\ 54320 \\ + 271600 \\ \hline 332,031 \end{array}$$

14. 2457;

$$\begin{array}{r} 2457 \\ 709\overline{)8104} \\ \underline{-5647} \\ 2457 \end{array}$$

15. \$12.07;

$$\begin{array}{r} \$2.86 \\ \$6.35 \\ \$1.78 \\ \$0.46 \\ + \$0.62 \\ \hline \$12.07 \end{array}$$

16. 604;

$$\begin{array}{r} 604 \\ 7\overline{)4228} \\ \underline{-42} \\ 02 \\ \underline{-0} \\ 28 \\ \underline{-28} \\ 0 \end{array}$$



$$\begin{array}{r}
 17. \ 515; \quad \begin{array}{r} 515 \\ 9 \overline{)4635} \\ \underline{-45} \phantom{0} \\ 13 \phantom{0} \\ \underline{-9} \phantom{0} \\ 45 \phantom{0} \\ \underline{-45} \\ 0 \end{array}
 \end{array}$$

$$18. \ \frac{4}{5}, \frac{5}{5} - \frac{1}{5} = \frac{4}{5}$$

$$19. \ 3; 3\frac{1}{3} - \frac{1}{3} = 3$$

$$20. \ 2\frac{1}{6}; 4\frac{6}{6} - 2\frac{5}{6} = 2\frac{1}{6}$$

$$\begin{array}{r}
 21. \ 20\frac{2}{3}; \quad \begin{array}{r} 20\frac{2}{3} \\ 3 \overline{)62} \\ \underline{-6} \phantom{0} \\ 02 \phantom{0} \\ \underline{-0} \\ 2 \end{array}
 \end{array}$$

$$\begin{array}{r}
 22. \ 4; \quad \begin{array}{r} 6\frac{3}{4} \\ 4 \overline{)27} \\ \underline{-24} \\ 3 \end{array}
 \end{array}$$

$$\begin{array}{l}
 23. \ 27; \frac{\text{dividend}}{3} = 9 \\
 \text{dividend} = 9 \times 3 = 27
 \end{array}$$

$$24. \ 1000; 1500 - 500 = 1000; \text{ five centuries equals 500 years}$$

$$25. \ 24 \text{ millimeters}; 12 \times 2 = 24 \text{ millimeters}; \text{ the diameter is twice the radius.}$$

$$26. \ \frac{2}{11}$$

$$27. \ C$$

$$28. \ 75 \text{ small squares}; 100 \times 0.75 = 75; \frac{3}{4} \text{ is equal to } 0.75$$

$$29. \ 1,284,204,000 \text{ people}$$

$$\begin{array}{l}
 30. \ \$3.10; \text{ sample: I subtracted the cost of the cereal and the change received from } \$10 \text{ to find the total amount spent on milk.} \\
 \text{Then I divided that amount by 2 to find the cost of each gallon of milk.}
 \end{array}$$

## Early Finishers

$$\begin{array}{r}
 a. \ \$798.00; \quad \begin{array}{r} \$3.50 \\ \times 228 \\ \hline 2800 \\ 7000 \\ + 70000 \\ \hline \$798.00 \end{array}
 \end{array}$$

b. More than their goal

c. Sample: I multiplied the cost of each car (\$3.50) by the number of cars washed (228) and placed the decimal two places from the last digit of the answer.

## Lesson Practice 59

$$a. \ \frac{3}{3}$$

$$b. \ =; \frac{4}{4} = 1$$

c.  $=$ ; the mixed number  $5\frac{4}{4}$  means  $5 + \frac{4}{4}$ . Since  $\frac{4}{4}$  equals 1, the addition  $5 + \frac{4}{4}$  is the same as  $5 + 1$ , which is 6. We find that  $5\frac{4}{4}$  and 6 are equal.  $5\frac{4}{4} = 6$

$$d. \ 1; \frac{3}{10} + \frac{7}{10} = \frac{10}{10} = 1$$

e. See student work.

$$f. \ \frac{3}{4}; 1 - \frac{1}{4} = \frac{4}{4} - \frac{1}{4} = \frac{3}{4}$$

$$g. \ \frac{1}{3}; 1 - \frac{2}{3} = \frac{3}{3} - \frac{2}{3} = \frac{1}{3}$$

h. An infinite number (more names than you could count if you counted forever)

## Written Practice 59

1. 204 seconds; there are 60 seconds in each minute.

$$\begin{array}{r}
 (3 \times 60) + 24 \\
 180 + 24 = 204 \text{ seconds}
 \end{array}$$

2. 6 breadsticks; Step 1: Find the total number of breadsticks.

$$5 \times 12 = 60$$

Step 2: Find one tenth of the total.

$$60 \div 10 = 6 \text{ breadsticks}$$

3. Sample:



4. 1, 2, 4;

The factors of 8 are 1, 2, 4, and 8

The factors of 20 are 1, 2, 4, 5, 10, and 20.

The factors of 8 that are the same as 20 are 1, 2, and 4.

5. 24 seconds; 40%; one minute has

60 seconds. Divide the minute into fifths.

$60 \div 5 = 12$  seconds

$\frac{2}{5}$  is equal to  $2 \times 12$  seconds = 24 seconds

$\frac{2}{5}$  is equal to  $\frac{4}{10}$  which is 40%

6. No; sample: 17 is not divisible by 3.

7. 1;  $\frac{1}{4} + \frac{3}{4} = \frac{4}{4} = 1$

8. 4;  $1\frac{1}{3} + 2\frac{2}{3} = 3\frac{3}{3} = 3 + \frac{3}{3} = 3 + 1 = 4$

9. 3;  $2\frac{5}{8} + \frac{3}{8} = 2\frac{8}{8} = 2 + \frac{8}{8} = 2 + 1 = 3$

10.  $\frac{3}{4}$ ;  $1 - \frac{1}{4}$   
 $\frac{4}{4} - \frac{1}{4} = \frac{3}{4}$

11.  $\frac{5}{8}$ ;  $1 - \frac{3}{8}$   
 $\frac{8}{8} - \frac{3}{8} = \frac{5}{8}$

12.  $2\frac{5}{8}$ ;  $2\frac{8}{8} - \frac{3}{8} = 2\frac{5}{8}$

13. 158,250;  

$$\begin{array}{r} 11 \quad 2 \quad 2 \\ 98,789 \\ 41,286 \\ + 18,175 \\ \hline 158,250 \end{array}$$

14. 10,903;  

$$\begin{array}{r} 6 \quad 4 \\ 47,150 \\ - 36,247 \\ \hline 10,903 \end{array}$$

15. 176,272;  

$$\begin{array}{r} 2 \quad 3 \\ 4 \quad 5 \\ 6 \quad 7 \\ 368 \\ \times 479 \\ \hline 3312 \\ 25760 \\ + 147200 \\ \hline 176,272 \end{array}$$

16. Eight and nine tenths

17.  $3\frac{3}{4}$ ;  

$$\begin{array}{r} 3\frac{3}{4} \\ 4 \overline{)15} \\ \underline{-12} \\ 3 \end{array}$$

18. 17 R 7;

17 R 7  

$$\begin{array}{r} 40 \overline{)687} \\ \underline{-40} \\ 287 \\ \underline{-280} \\ 7 \end{array}$$

19. 14 R 10;

14 R 10  

$$\begin{array}{r} 60 \overline{)850} \\ \underline{-60} \\ 250 \\ \underline{-240} \\ 10 \end{array}$$

20. \$0.18;

\$0.18  

$$\begin{array}{r} 30 \overline{)5.40} \\ \underline{-0} \\ 54 \\ \underline{-30} \\ 240 \\ \underline{-240} \\ 0 \end{array}$$

21. \$1825.20;

$$\begin{array}{r} 3 \\ 4 \\ \$3.60 \\ \times 507 \\ \hline 2520 \\ + 18000 \\ \hline \$1825.20 \end{array}$$

22. 20;  $(900 - 300) \div 30$

$600 \div 30 = 20$

23. B;  $3\frac{2}{2}$  is equal to  $3 + 1 = 4$

24.  $\frac{5}{5}$

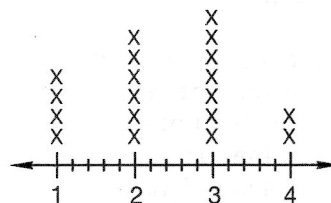
25. 6 cm;  $3 \times 2$  cm = 6 cm

26.  $35 \times 21$  or  $(35 \times 20) + (35 \times 1)$ ; see student work.

27. a. A and D; they both have  $\frac{1}{7}$  chance

b.  $\frac{3}{7}$

28. a.



b. 2; the number in the middle of the data set is 2.

c. 3; this number repeats the most.

29. 3000 hits; sample: both 1477 and 1506 are close to 1500, and  $1500 + 1500 = 3000$ .

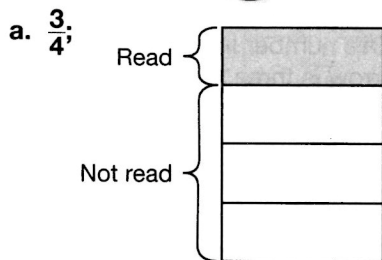
30.  $136^{\circ}\text{F}$

**Early Finishers**

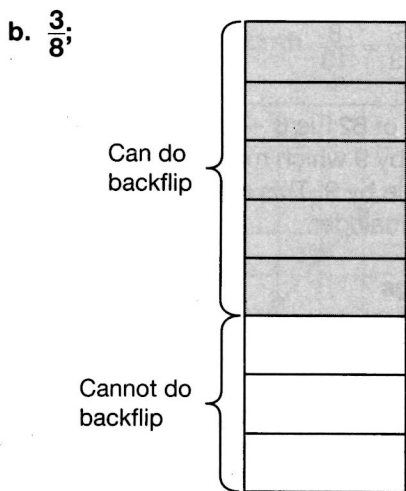
- See student work.
- $\frac{4}{9}$
- $\frac{5}{9}$
- $\frac{4}{9} + \frac{5}{9} = \frac{9}{9} = 1$

**Lesson Practice**

60

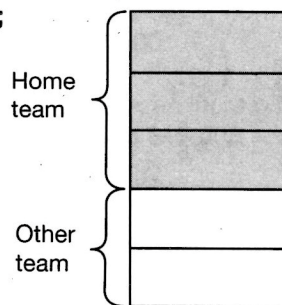


We draw a rectangle divided into four equal parts to represent the book as a whole. We shade  $\frac{1}{4}$  of the book to represent the part already read. This leaves  $\frac{3}{4}$  of the book left to read.



We draw a rectangle divided into eight equal parts to represent the gymnasts as a whole. We shade  $\frac{5}{8}$  of the rectangle to represent the gymnasts who can do a backflip. This leaves  $\frac{3}{8}$  who cannot.

c.  $\frac{2}{5}$



We draw a rectangle divided into five equal parts to represent the spectators as a whole. We shade  $\frac{3}{5}$  of the rectangle to represent the spectators rooting for the home team. This leaves  $\frac{2}{5}$  who were not. They were rooting for the other team.

**Written Practice**

60

1. **31 students;** Step 1: Find the number of girls in the class.

$$14 + 3 = 17 \text{ girls}$$

Step 2: Find the total number of students.

$$14 + 17 = 31 \text{ students}$$

2. **17 cents;** Step 1: Find the total spent.

$$\$2.39 + \$4.49 + \$0.56 = \$7.44$$

Step 2: Find the change from \$10.

$$\begin{array}{r} \phantom{\$}10.\overset{9}{0}\overset{9}{0} \\ - \$7.44 \\ \hline \phantom{\$}2.56 \end{array}$$

3. **10 decades;**  $1900 - 1800 = 100$  years;

$$10 \text{ years} = 1 \text{ decade}; 100 \div 10 = 10 \text{ decades}$$

4. **12 inches;**  $24 \div 2 = 12$  inches; the radius is half the diameter.

5. **800;** round 487 to 500 and 326 to 300 and add  $500 + 300 = 800$

6. a. 7

b. 4

7. **124 ounces;**  $(7 \times 16) + 12$

$$112 + 12 = 124 \text{ ounces}$$

8. **4 miles;**

$$p = 2l + 2w = 2(1 \text{ mile}) + 2(1 \text{ mile})$$

$$2 \text{ miles} + 2 \text{ miles} = 4 \text{ miles}$$



9.  $1; \frac{1}{6} + \frac{2}{6} + \frac{3}{6}$

$$\frac{3}{6} + \frac{3}{6} = \frac{6}{6} = 1$$

10.  $5; 3\frac{3}{5} + 1\frac{2}{5} = 4\frac{5}{5} = 4 + \frac{5}{5} = 4 + 1 = 5$

11.  $\frac{7}{8}; 1 - \frac{1}{8}$

$$\frac{8}{8} - \frac{1}{8} = \frac{7}{8}$$

12.  $3\frac{3}{5}; 4\frac{5}{5} - 1\frac{2}{5} = 3\frac{3}{5}$

13. \$20.62; 
$$\begin{array}{r} \$35.24 \\ - \$14.62 \\ \hline \$20.62 \end{array}$$

14. \$4.08; 
$$\begin{array}{r} \$4.08 \\ 9 \overline{) \$36.72} \\ \underline{-36} \phantom{00} \\ 07 \phantom{00} \\ \underline{-0} \phantom{00} \\ 72 \phantom{00} \\ \underline{-72} \phantom{00} \\ 0 \end{array}$$

15.  $2\frac{3}{10};$  
$$\begin{array}{r} 2\frac{3}{10} \\ 10 \overline{) 23} \\ \underline{-20} \phantom{00} \\ 3 \end{array}$$

16.  $\frac{7}{8}; 12\frac{1}{2}\%$ ; think of the airtime as a whole, then subtract one eighth from it.

$$\begin{aligned} 1 - \frac{1}{8} \\ \frac{8}{8} - \frac{1}{8} = \frac{7}{8} \\ \frac{7}{8} = 12\frac{1}{2}\% \end{aligned}$$

17. 134,640; 
$$\begin{array}{r} 21 \\ 42 \\ 374 \\ \times 360 \\ \hline 22440 \\ + 112200 \\ \hline 134,640 \end{array}$$

18. 16 R 3; 
$$\begin{array}{r} 16 \text{ R } 3 \\ 40 \overline{) 643} \\ \underline{-40} \phantom{00} \\ 243 \\ \underline{-240} \phantom{00} \\ 3 \end{array}$$

19. 1200;  $60 \times (800 \div 40)$   
 $60 \times 20$   

$$\begin{array}{r} 60 \\ \times 20 \\ \hline 1200 \end{array}$$

20. 67; 
$$\begin{array}{r} 67 \\ 20 \overline{) 1340} \\ \underline{-120} \phantom{00} \\ 140 \\ \underline{-140} \phantom{00} \\ 0 \end{array}$$

21.  $=; \frac{4}{4} \bigcirc \frac{5}{5}$   

$$\begin{array}{c} \downarrow \quad \downarrow \\ 1 = 1 \end{array}$$

22.  $\frac{8}{8}$

23.  $\frac{3}{10}$ ; the arrow is pointing between 0 and 1, so it is named by a fraction and not by a mixed number. The distance between whole numbers on this number line is divided into tenths. The arrow is three sections from zero, which is  $\frac{3}{10}$ .

24. 35 minutes;  $12:00 - 11:25 = 0:35$

25. a.  $\frac{5}{13}; \frac{5}{2+5+6} = \frac{5}{13}$

b.  $\frac{8}{13}$ ; subtract the possibility that it is green from the whole.

$$\begin{aligned} 1 - \frac{5}{13} \\ \downarrow \\ \frac{13}{13} - \frac{5}{13} = \frac{8}{13} \end{aligned}$$

26. D; the sum of 621 is  $6 + 2 + 1 = 9$ . The sum is divisible by 9 which means the number is also divisible by 9. This means that there will not be a remainder.

27. a. 12 songs

b. 25 CDs;  $7 + 13 + 3 + 2 = 25$

28. a. A tiger lives an average of 4 years longer than a leopard.

b. 20 years;  $4 \times 5 = 20$

29. D

30. 400 inches; sample: 78 is about 80 and  $50 \times 80$  is 4000.