

5. $12 \div 3 = \underline{4}$
6. $54 \div 9 = \underline{6}$
7. $24 \div 3 = \underline{8}$
8. $25 \div 5 = \underline{5}$
9. $14 \div 2 = \underline{7}$
10. $8 \div 1 = \underline{8}$
11. $\frac{81}{9} = \underline{9}$
12. $\frac{21}{3} = \underline{7}$
13. $4 \times \underline{6} = 24$
14. $6 \times \underline{10} = 60$
15. $6 \times \underline{7} = 42$
16. $4 \times \underline{7} = 28$

$$\begin{array}{r} 71 \\ +62 \\ \hline 133 \end{array}$$

$$\begin{array}{r} 34 \overset{1}{3} \\ - 25 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 92 \\ +11 \\ \hline 103 \end{array}$$

$$\begin{array}{r} 1 \\ 20. \quad 57 \\ +46 \\ \hline 103 \end{array}$$

21. parallel

22. $5 \times 3 = 15$ sq yd

12. $\frac{45}{9} = \underline{5}$

13. $4 \times \underline{8} = 32$

14. $6 \times \underline{8} = 48$

15. $6 \times \underline{6} = 36$

16. $4 \times \underline{4} = 16$

$$\begin{array}{r} 12 \overset{1}{1} \\ - 9 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 1 \\ 18. \quad 76 \\ +54 \\ \hline 130 \end{array}$$

$$\begin{array}{r} 33 \\ +45 \\ \hline 78 \end{array}$$

$$\begin{array}{r} 56 \overset{1}{4} \\ - 25 \\ \hline 39 \end{array}$$

21. $14 \div 2 = 7$ qt

22. $30 - 16 = 14$ books

Lesson Practice 8A

1. 6,12,18;3
2. 6,12,18,24,30,36,42,48,54;9
3. 6,12;2
4. 6,12,18,24,30,36,42,48,54,60;10
5. $12 \div 6 = \underline{2}$
6. $6 \div 6 = \underline{1}$
7. $24 \div 6 = \underline{4}$
8. $36 \div 6 = \underline{6}$
9. $42 \div 6 = \underline{7}$
10. $18 \div 6 = \underline{3}$
11. $60 \div 6 = \underline{10}$
12. $24 \div 6 = \underline{4}$
13. $42 \div 6 = \underline{7}$
14. $\frac{54}{6} = \underline{9}$
15. $\frac{30}{6} = \underline{5}$
16. $48 \div \underline{6} = 8$

Systematic Review 7F

1. $6 \times 7 = 42$ sq ft
2. $3 \times 8 = 24$ sq in
3. $10 \times 9 = 90$ sq ft
4. $3 \times 3 = 9$ sq mi
5. $27 \div 9 = \underline{3}$
6. $15 \div 3 = \underline{5}$
7. $30 \div 5 = \underline{6}$
8. $16 \div 2 = \underline{8}$
9. $72 \div 9 = \underline{8}$
10. $90 \div 10 = \underline{9}$
11. $\frac{20}{2} = \underline{10}$

- 17. $24 \div 6 = 4$ ants
- 18. $\$30 \div 6 = \5 a day

Lesson Practice 8B

- 1. 6,12,18,24,30;5
- 2. 6;1
- 3. 6,12,18,24;4
- 4. 6,12,18,24,30,36,42,48;8
- 5. $36 \div 6 = \underline{6}$
- 6. $60 \div 6 = \underline{10}$
- 7. $30 \div 6 = \underline{5}$
- 8. $18 \div 6 = \underline{3}$
- 9. $54 \div 6 = \underline{9}$
- 10. $42 \div 6 = \underline{7}$
- 11. $6 \div 6 = \underline{1}$
- 12. $24 \div 6 = \underline{4}$
- 13. $18 \div 6 = \underline{3}$
- 14. $\frac{30}{6} = \underline{5}$
- 15. $\frac{48}{6} = \underline{8}$
- 16. $12 \div 6 = 2$
- 17. $60 \div 6 = 10$ songs
- 18. $\$54 \div 6 = \9 each hour

Lesson Practice 8C

- 1. 6,12,18,24,30,36,42,48,54;9
- 2. 6,12,18,24,30,36;6
- 3. 6,12,18,24,30,36,42,48,54,60;10
- 4. 6,12,18,24,30,36,42;7
- 5. $18 \div 6 = \underline{3}$
- 6. $54 \div 6 = \underline{9}$
- 7. $6 \div 6 = \underline{1}$
- 8. $30 \div 6 = \underline{5}$
- 9. $12 \div 6 = \underline{2}$
- 10. $24 \div 6 = \underline{4}$
- 11. $42 \div 6 = \underline{7}$
- 12. $36 \div 6 = \underline{6}$
- 13. $48 \div 6 = \underline{8}$
- 14. $\frac{60}{6} = \underline{10}$

- 15. $\frac{54}{6} = \underline{9}$
- 16. $\frac{12}{6} = \underline{2}$
- 17. $\$48 \div 6 = \8 per friend
- 18. $18 \div 6 = 3$ ft
 $3 \div 3 = 1$ yd

Systematic Review 8D

- 1. $18 \div 6 = \underline{3}$
- 2. $42 \div 6 = \underline{7}$
- 3. $54 \div 6 = \underline{9}$
- 4. $24 \div 3 = \underline{8}$
- 5. $25 \div 5 = \underline{5}$
- 6. $18 \div 2 = \underline{9}$
- 7. $54 \div 9 = \underline{6}$
- 8. $60 \div 10 = \underline{6}$
- 9. $48 \div 6 = \underline{8}$
- 10. $72 \div 9 = \underline{8}$
- 11. $\frac{21}{3} = \underline{7}$
- 12. $\frac{35}{5} = \underline{7}$
- 13. $12 \times 6 = 72$ sq ft
- 14. $7 \times 3 = 21$ sq in
- 15. $4 \times 4 = 16$ sq in
- 16.
$$\begin{array}{r} 23 \qquad 20+3 \\ \times 36 \qquad \times 30+6 \\ \hline 11 \qquad 100 \qquad 10 \\ 128 \qquad 100+20+8 \\ \hline 69 \qquad 600+90+ \\ 828 \qquad 800+20+8 \end{array}$$
- 17.
$$\begin{array}{r} 78 \qquad 70+8 \\ \times 34 \qquad \times 30+4 \\ \hline 1 \qquad 100 \qquad 200 \qquad 30 \\ 23 \qquad 200+80+2 \\ 282 \qquad 2000+100+40 \\ \hline 214 \qquad 2000+600+50+2 \\ 2652 \end{array}$$
- 18.
$$\begin{array}{r} 65 \qquad 60+5 \\ \times 15 \qquad \times 10+5 \\ \hline 2 \qquad 20 \\ 305 \qquad 300+00+5 \\ \hline 65 \qquad 600+50+ \\ 975 \qquad 900+70+5 \end{array}$$

19. $12 \times 15 = 180$ baby mice
 20. $61 - 45 = 16$ sq ft
 21. $36 \div 6 = 6$ afghans
 22. $\$39 + \$28 = \$67$

Systematic Review 8E

1. $12 \div 6 = \underline{2}$
 2. $60 \div 6 = \underline{10}$
 3. $42 \div 6 = \underline{7}$
 4. $24 \div 6 = \underline{4}$
 5. $27 \div 9 = \underline{3}$
 6. $40 \div 5 = \underline{8}$
 7. $20 \div 10 = \underline{2}$
 8. $12 \div 3 = \underline{4}$
 9. $15 \div 3 = \underline{5}$
 10. $30 \div 6 = \underline{5}$
 11. $\frac{6}{6} = \underline{1}$
 12. $\frac{12}{2} = \underline{6}$
 13.
$$\begin{array}{r} 13 \\ +19 \\ \hline 32 \end{array}$$

 14.
$$\begin{array}{r} 28 \\ +49 \\ \hline 77 \end{array}$$

 15.
$$\begin{array}{r} 6\cancel{7} \frac{1}{2} \\ - 2 \frac{6}{6} \\ \hline 4 \frac{6}{6} \end{array}$$

 16.
$$\begin{array}{r} 3\cancel{4} \frac{1}{7} \\ - 3 \frac{8}{9} \\ \hline 9 \end{array}$$

 17.
$$\begin{array}{r} 45 \qquad 40+5 \\ \times 22 \quad \times 20+2 \\ \hline 180 \quad 100 \quad 80+0 \\ 80 \quad 800+00 \\ \hline 990 \quad 900+90+0 \end{array}$$

18.
$$\begin{array}{r} 16 \qquad 10+6 \\ \times 14 \quad \times 10+4 \\ \hline 2 \qquad 20 \\ 144 \quad 100+40+4 \\ \hline 16 \quad 100 \quad 60+ \\ 224 \quad 200+20+4 \end{array}$$

 19.
$$\begin{array}{r} 39 \qquad 30+9 \\ \times 5 \quad \times 5 \\ \hline 14 \quad 100 \quad 40 \\ 55 \quad +50+5 \\ \hline 195 \quad 100+90+5 \end{array}$$

 20. $30 \div 3 = 10$ yd
 $\$6 \times 10 = \60
 21. $14 \times 18 = 252$ sq in
 22. $46 + 28 = 74$ mi

Systematic Review 8F

1. $48 \div 6 = \underline{8}$
 2. $18 \div 6 = \underline{3}$
 3. $12 \div 6 = \underline{2}$
 4. $36 \div 6 = \underline{6}$
 5. $72 \div 9 = \underline{8}$
 6. $54 \div 6 = \underline{9}$
 7. $27 \div 3 = \underline{9}$
 8. $45 \div 5 = \underline{9}$
 9. $70 \div 10 = \underline{7}$
 10. $16 \div 2 = \underline{8}$
 11. $\frac{42}{6} = \underline{7}$
 12. $\frac{60}{6} = \underline{10}$
 13.
$$\begin{array}{r} 85 \\ +18 \\ \hline 103 \end{array}$$

 14.
$$\begin{array}{r} 3\cancel{4} \frac{1}{7} \\ - 3 \frac{8}{9} \\ \hline 9 \end{array}$$

 15.
$$\begin{array}{r} 49 \\ +21 \\ \hline 70 \end{array}$$

 16.
$$\begin{array}{r} 5\cancel{6} \frac{1}{4} \\ - 2 \frac{5}{9} \\ \hline 3 \frac{9}{9} \end{array}$$

17.
$$\begin{array}{r} 33 \\ \times 24 \\ \hline 122 \\ 66 \\ \hline 792 \end{array}$$

$$\begin{array}{r} 30+3 \\ \times 20+4 \\ \hline 10 \\ 100+20+2 \\ 600+60 \\ \hline 700+90+2 \end{array}$$
18.
$$\begin{array}{r} 44 \\ \times 14 \\ \hline 166 \\ 44 \\ \hline 616 \end{array}$$

$$\begin{array}{r} 40+4 \\ \times 10+4 \\ \hline 10 \\ 100 \\ 100+60+6 \\ 400+40 \\ \hline 600+10+6 \end{array}$$
19.
$$\begin{array}{r} 15 \\ \times 15 \\ \hline 12 \\ 55 \\ \hline 225 \end{array}$$

$$\begin{array}{r} 10+5 \\ \times 10+5 \\ \hline 100 \\ 20 \\ +50+5 \\ 100+50 \\ \hline 200+20+5 \end{array}$$
20. $24 \div 6 = 4$ turns
 21. $\$35 \times 14 = \490
 22. $42 \div 6 = 7$ ft

Lesson Practice 9A

- done
- $4 \times 4 = 16$
 $16 \div 2 = 8$ sq in
- $2 \times 7 = 14$
 $14 \div 2 = 7$ sq mi
- $3 \times 6 = 18$
 $18 \div 2 = 9$ sq ft
- $4 \times 5 = 20$
 $20 \div 2 = 10$ sq in
- $9 \times 2 = 18$
 $18 \div 2 = 9$ sq ft
- $8 \times 2 = 16$
 $16 \div 2 = 8$ sq yd
- $1 \times 2 = 2$
 $2 \div 2 = 1$ sq in
- $2 \times 2 = 4$
 $4 \div 2 = 2$ sq mi
- $2 \times 4 = 8$
 $8 \div 2 = 4$ sq in

Lesson Practice 9B

- $3 \times 4 = 12$
 $12 \div 2 = 6$ sq ft
- $2 \times 6 = 12$
 $12 \div 2 = 6$ sq in
- $1 \times 8 = 8$
 $8 \div 2 = 4$ sq mi
- $2 \times 10 = 20$
 $20 \div 2 = 10$ sq ft
- $2 \times 5 = 10$
 $10 \div 2 = 5$ sq in
- $10 \times 1 = 10$
 $10 \div 2 = 5$ sq in
- $2 \times 3 = 6$
 $6 \div 2 = 3$ sq yd
- $3 \times 6 = 18$
 $18 \div 2 = 9$ sq ft
- $3 \div 3 = 1$ yd
 $6 \div 3 = 2$ yd
- $2 \times 1 = 2$
 $2 \div 2 = 1$ sq yd

Lesson Practice 9C

- $1 \times 4 = 4$
 $4 \div 2 = 2$ sq ft
- $2 \times 5 = 10$
 $10 \div 2 = 5$ sq in
- $2 \times 9 = 18$
 $18 \div 2 = 9$ sq mi
- $4 \times 4 = 16$
 $16 \div 2 = 8$ sq ft
- $2 \times 8 = 16$
 $16 \div 2 = 8$ sq in
- $2 \times 4 = 8$
 $8 \div 2 = 4$ sq in
- $2 \times 2 = 4$
 $4 \div 2 = 2$ sq yd
- $2 \times 7 = 14$
 $14 \div 2 = 7$ sq ft
- $4 \times 3 = 12$
 $12 \div 2 = 6$ sq ft
6 plants
- $6 \times 3 = 18$
 $18 \div 2 = 9$ sq yd

APPLICATION AND ENRICHMENT SOLUTIONS

Application and Enrichment 1G

wind-up mouse

1. Final answer is 120 (given).
2. Final answer is 486.
3. Final answer is 280.
4. Final answer is 576.

Application and Enrichment 2G

space shuttle

1. 10
2. 9
3. 2
4. 5
5. 2
6. 5
7. 1
8. 10
9. 3
10. 5
11. 2
12. 2
13. 4
14. 3
15. 2
16. 1
17. 4
18. 5
19. 8
20. 7

Application and Enrichment 3G

boat

1. divide
2. multiply
3. divide
4. divide
5. multiply

Application and Enrichment 4G

music box figure

1. $5A = 15$ or $15 \div 5 = A$
 $A = 3$
2. $3B = 30$ or $30 \div 3 = B$
 $B = 10$
Students may use any letter they like for the unknown.
3. $2D = 12$ or $12 \div 2 = D$
 $D = 6$
4. $8H = 80$ or $80 \div 8 = H$
 $H = 10$

Application and Enrichment 5G

1. line segment —
2. point •
3. ray →
4. line ↔
5. point
6. line segment
7. ray
8. line

Application and Enrichment 6G

clock

These answers may be in any order:
 8×3 , 6×4 , 4×6 , 3×8

Application and Enrichment 7G

6 inches \times 4 inches = 24 square inches

Application and Enrichment 8G

airplane

1. Put a black X on the four shapes that do not have four sides.
2. Five parallelograms; they all have two sets of parallel sides.

3. Three rectangles; they all have four right angles.
4. One square; all four sides are the same length.
The unmarked figure is a trapezoid.

Application and Enrichment 9G

1. $90^\circ + 90^\circ + 90^\circ + 90^\circ = 360^\circ$
Yes
2. $3 \times 45^\circ = 135^\circ$ or $45^\circ + 45^\circ + 45^\circ = 135^\circ$
Smaller angles may be added to find the measure of larger angles.

1. There are two obtuse angles.
2. There are two right angles.
3. Use the definitions to check the angles. They may be turned in any direction.
4. $90^\circ - 75^\circ = 15^\circ$, so $D = 15^\circ$

Application and Enrichment 10G

hot air balloon

1. always
2. more likely
3. always
4. never
5. less likely

Application and Enrichment 11G

1. Smith:
 $1 + 2 + 7 + 10 = 20$; $20 \div 4 = 5$
Jones:
 $4 + 5 + 6 = 15$; $15 \div 3 = 5$
Smith = Jones
2. Chloe:
 $6 + 7 + 8 = 21$; $21 \div 3 = 7$
Tucker:
 $1 + 2 + 12 = 15$; $15 \div 3 = 5$
Chloe > Tucker

3. Timothy:
 $1 + 2 + 3 = 6 \div 3 = 2$
Peter:
 $0 + 2 + 10 = 12$; $12 \div 3 = 4$
Timothy < Peter

number of row	1	2	3	4	5	6	7	8
number of boxes in that row	1	2	3	4	5	6	7	8
total number of boxes	1	3	6	10	15	21	28	36

1. They are the same.
2. Sample answers: Add the number of boxes in each new row to the total number of boxes in the previous rows; look at the bottom row and add a number that is one more each time:
 $1 + 2 = 3$, $3 + 3 = 6$, $6 + 4 = 10$, $10 + 5 = 15$, etc. (There may be other ways to describe the patterns in the chart.)

number of triangles	1	2	3	4	5	6	7
number of toothpicks	3	5	7	9	11	13	15

3. 13 toothpicks
4. 21 toothpicks. Sample answers:
Each new triangle needs two more toothpicks; double the number of triangles and add one to find the number of toothpicks needed. (Experimenting with this is more important than finding the exact answer without help.)