

Solutions to Even-Numbered Problems

CHAPTER 1

ARITHMETIC OF WHOLE NUMBERS

Preview 1

2. (a) 210,000 (b) 214,700
4. (a) $82 - 45 = 37$ (b) $4035 - 1967 = 2068$
- (c) $14 + 31 + 59 - 67 + 22 + 37 - 19 = 77$
6. (a)
$$\begin{array}{r} 334 \text{ R2} \\ 6 \overline{)2006} \\ \underline{18} \\ 20 \\ \underline{18} \\ 26 \\ \underline{24} \\ 2 \end{array}$$
 (b)
$$\begin{array}{r} 203 \\ 37 \overline{)7511} \\ \underline{74} \\ 11 \\ \underline{11} \\ 0 \end{array}$$
8. (a) 1, 2, 3, 4, 6 and 12
- (b) $12 = 2 \times 2 \times 3$
- $$\begin{array}{c} 12 \\ \swarrow \quad \searrow \\ 2 \quad 6 \\ \swarrow \quad \searrow \\ 2 \quad 3 \end{array}$$

Exercises 1-1 Reading, Writing, Rounding, and Adding Whole Numbers

A.

2. Two thousand, three hundred four
4. Two hundred seven thousand, six hundred thirty
6. Ten thousand, seven
8. Five million, fifty-five thousand, five hundred fifty
10. Six thousand, seven hundred nine
12. 17,024 14. 3,002,017 16. 720,000,010
18. 4400 20. 15,000 22. 226,000

B.

2. 65 4. 103 6. 124 8. 136
10. 1,003 12. 831 14. 806 16. 5,525

18. 9302 20. 15,715 22. 47,111 24. 14,711
26. 156,021 28. 2,077,373

C.

2. 5211 4. 6441 6. 16,275 8. 7655
10. 9851 12. 141 14. 148 16. 153,546
18. 3,333,314

D.

- | | | | |
|--|---|--|---|
| <p>2. 3280
 2650
 2465
+ 2970

11365 fbm
or 11,365 fbm</p> | <p>4. \$13860
 3854
 942
+ 832

\$19488
or \$19,488</p> | <p>6. 1480
 1240
 1560
 1320
+ 1070

6670 shingles</p> | <p>8. 24
 8
 42
 16
+ 21

111 qt</p> |
| <p>10. 8
 14
 6
 27
+ 42

97 in.</p> | <p>12. 325
 162
 25
+ 68

580 parts</p> | <p>14. 7
 18
 6
 11
+ 9

51 V</p> | <p>16. 8
 8
 150
 6
 120
+ 8

300 fl oz</p> |
-
- | | | |
|--|--|--|
| <p>18. (a) \$37395
 1000
 3100
 950
+ 2500

\$ 44945 or \$44,945</p> | <p>(b) \$ 37395
 700
 3850
 900
+ 3100

\$ 45945 or \$45,945</p> | <p>(c) \$ 37395
 3100
 2100
 950
 950
+ 1900

\$ 46395 or \$46,395</p> |
|--|--|--|

E.

- | | | |
|---|---|--|
| <p>2. (a) Daily Totals
 Day 1. 1919
 2. 2125
 3. 1958
 4. 1594
 5. 2192
 6. 1953
 7. 1974
 8. 1988
 9. 1667
 10. 1899</p> | <p>(b) Machine Totals
 A 4074
 B 4462
 C 2185
 D 5665
 E 2883</p> | <p>(c) Machine Totals 19,269
 Daily Totals 19,269
 The totals are equal.</p> |
|---|---|--|

4.	(a)	Total Expense	(b)	Total Monthly Income	(c)	SELL
		\$ 4260		\$ 1760		
		2540		2650		
		2100		<u>+ 3325</u>		
		948		\$ 7735		
		815				
		750				
		<u>+ 187</u>				
		\$ 11600 or \$11,600				

Exercises 1-2 Subtraction of Whole Numbers

A.

2.	7	4.	8	6.	9	8.	0	10.	3	12.	8
14.	9	16.	9	18.	6	20.	5	22.	18	24.	8
26.	5	28.	9	30.	8	32.	9	34.	7	36.	4

B.

2.	29	4.	19	6.	36	8.	29	10.	22
12.	38	14.	85	16.	254	18.	154	20.	715
22.	29	24.	5698	26.	56,042	28.	9614	30.	22,422

C.

2.	8000	4.	26 cm	200 cm	6.	\$ 72
	<u>- 5647</u>		47	<u>- 171</u>		375
	2353 sq ft		38	29 cm remain		84
			27			617
			<u>32</u>			<u>18</u>
			170			\$1166 Total
			<u>1</u>			Withdrawals
			171 cm			
						Original Balance \$ 5820
						<u>- 1166</u>
						Remaining Balance \$4654
8.	(a) 9 in.	(b) 4 in.	(c) 4 in.	(d) 5 in.		
10.	14260	12.	Pipe A	54 - 22 = 32 in.		
	<u>- 8420</u>		Pipe B	66 - 34 = 32 in.		
	5840 lb					

$$\begin{array}{r} 14. \quad 9472 \\ - 5786 \\ \hline 3686 \end{array}$$

$$\begin{array}{r} 16. \quad (a) \quad 91625 \\ - 53216 \\ \hline 38409 \\ \text{or } 38,409 \text{ miles} \end{array}$$

$$\begin{array}{r} (b) \quad 40000 \\ - 38409 \\ \hline 1591 \text{ miles} \end{array}$$

$$\begin{array}{r} 18. \quad 2722 \\ - 1451 \\ \hline 1271 \text{ ft} \end{array}$$

D.

2. Both sums are the same, (1,083,676,269)

$$\begin{array}{r} 4. \quad \$ 3,837,672 \\ - 3,420,867 \\ \hline \$ 416,805 \end{array}$$

$$\begin{array}{r} 6. \quad \$ 17,824 \\ - 9,357 \\ \hline \$ 8,467 \text{ cubic feet} \end{array}$$

Exercises 1-3 Multiplication of Whole Numbers**A.**

- | | | | | | |
|---------|----------|----------|----------|----------|----------|
| 2. 56 | 4. 72 | 6. 87 | 8. 28 | 10. 84 | 12. 168 |
| 14. 423 | 16. 156 | 18. 564 | 20. 644 | 22. 1088 | 24. 153 |
| 26. 308 | 28. 1728 | 30. 7138 | 32. 1650 | 34. 928 | 36. 8930 |

B.

- | | | | | |
|---|--|--|--|---|
| 2. $\begin{array}{r} 2006 \\ \times 125 \\ \hline 10030 \\ 4012 \\ \hline 2006 \\ 250750 \\ \text{or } 250,750 \end{array}$ | 4. $\begin{array}{r} 809 \\ \times 47 \\ \hline 5663 \\ 3236 \\ \hline 38023 \\ \text{or } 38,023 \end{array}$ | 6. $\begin{array}{r} 708 \\ \times 58 \\ \hline 5664 \\ 3540 \\ \hline 41064 \\ \text{or } 41,064 \end{array}$ | 8. $\begin{array}{r} 2043 \\ \times 670 \\ \hline 143010 \\ 12258 \\ \hline 1368810 \\ \text{or } 1,368,810 \end{array}$ | 10. $\begin{array}{r} 563 \\ \times 107 \\ \hline 3941 \\ 5630 \\ \hline 60241 \\ \text{or } 60,241 \end{array}$ |
| 12. $\begin{array}{r} 609 \\ \times 7 \\ \hline 4263 \end{array}$ | 14. $\begin{array}{r} 542 \\ \times 600 \\ \hline 325200 \\ \text{or } 325,200 \end{array}$ | 16. $\begin{array}{r} 407 \\ \times 22 \\ \hline 814 \\ 814 \\ \hline 8954 \end{array}$ | 18. $\begin{array}{r} 514 \\ \times 62 \\ \hline 1028 \\ 3084 \\ \hline 31868 \\ \text{or } 31,868 \end{array}$ | 20. $\begin{array}{r} 560 \\ \times 203 \\ \hline 1680 \\ 11200 \\ \hline 113680 \\ \text{or } 113,680 \end{array}$ |

C.

$$\begin{array}{r} 2. \quad 150 \\ \times 14 \\ \hline 600 \\ 150 \\ \hline 2100 \text{ ft} \end{array}$$

$$\begin{array}{r} 4. \quad \$ 859 \\ \times 17 \\ \hline 6013 \\ 859 \\ \hline \$ 14603 \text{ or } \$14,603 \end{array}$$

$$\begin{array}{r} 6. \quad 25 \\ \times 9 \\ \hline 225 \text{ in.} \end{array}$$

$$\begin{array}{r} 8. \quad 12 \\ \times 11 \\ \hline 12 \\ 12 \\ \hline 132 \text{ in.} \end{array}$$

$$\begin{array}{r} 10. \quad 4000 \\ \times 50 \\ \hline 200000 \\ \text{or } 200,000 \text{ ohms} \end{array}$$

$$\begin{array}{r} 12. \quad 2 \times 5 \times 6 = 60 \text{ shifts} \\ 738000 \\ \times 60 \\ \hline 44,280,000 \text{ pins in six weeks} \end{array}$$

$$\begin{array}{r} 14. \quad 201 \\ \times 72 \\ \hline 420 \\ 1470 \\ \hline 15120 \text{ or } 15,120 \text{ microamps} \end{array}$$

$$\begin{array}{r} 16. \quad 78 \\ \times 3 \\ \hline 234 \text{ V} \end{array}$$

$$\begin{array}{r} 18. \quad 24 \\ \times 16 \\ \hline 144 \\ 24 \\ \hline 384 \text{ miles} \end{array}$$

$$\begin{array}{r} 20. \quad 15 \\ \times 4 \\ \hline 60 \text{ cubic feet} \\ \text{(per minute, per person)} \end{array}$$

$$\begin{array}{r} 22. \quad 23 \\ \times 4 \\ \hline 92 \text{ bpm} \end{array}$$

$$\begin{array}{r} 24. \quad 155 \\ \times 18 \\ \hline 1240 \\ 155 \\ \hline 2790 \text{ calories} \end{array}$$

$$\begin{array}{r} 26. \quad 12 \quad 144 \\ \times 12 \quad \times 8 \\ \hline 24 \quad 1152 \text{ pairs} \\ 12 \\ \hline 144 \end{array}$$

D.

2. (a) $365 \times \$100 = \$36,500$ (not a leap year)
 (b) $52 \times \$700 = \$36,400$
 (c) $400 + 800 + 1,200 + 1,600 + 2,000 + 2,400 + 2,800 + 3,200 + 3,600$
 $+ 4,000 + 4,400 + 4,800 = \$31,200$
 (d) $1 + 2 + 4 + 8 + \dots + 16,777,216 + 33,554,432 = 67,108,863 \text{ cents}$
 $= \$671,088.63$
 (e) gives most money

$$\begin{array}{r} 4. \quad 2285 \quad 2570 \quad 395 \quad 20,565 + 12,850 + 1,185 = 34,600 \text{ lb} \\ \times 9 \quad \times 5 \quad \times 3 \\ \hline 20,565 \text{ lb} \quad 12,850 \text{ lb} \quad 1,185 \text{ lb} \end{array}$$

$$\begin{array}{r} 6. \quad 4755 \\ \times 2800 \\ \hline 13,314,000 \text{ Btu} \end{array}$$

Exercises 1-4 Division of Whole Numbers**A.**

$$\begin{array}{r} 11 \text{ r}4 \\ 8 \overline{)92} \\ \underline{8} \\ 12 \\ \underline{8} \\ 4 \end{array}$$

$$\begin{array}{r} 7 \text{ r}2 \\ 5 \overline{)37} \\ \underline{35} \\ 2 \end{array}$$

$$\begin{array}{r} 1 \\ 6 \overline{)6} \\ \underline{6} \end{array}$$

$$\begin{array}{r} 4 \\ 7 \overline{)28} \\ \underline{28} \end{array}$$

$$\begin{array}{r} 35 \\ 7 \overline{)245} \\ \underline{21} \\ 35 \\ \underline{35} \end{array}$$

$$\begin{array}{r} 57 \\ 4 \overline{)228} \\ \underline{20} \\ 28 \\ \underline{28} \end{array}$$

$$\begin{array}{r} 1103 \text{ r}1 \\ 3 \overline{)3310} \\ \underline{3} \\ 03 \\ \underline{3} \\ 010 \\ \underline{9} \\ 1 \end{array}$$

$$\begin{array}{r} 52 \\ 7 \overline{)364} \\ \underline{35} \\ 14 \\ \underline{14} \end{array}$$

$$\begin{array}{r} 50 \text{ r}1 \\ 4 \overline{)201} \\ \underline{20} \\ 01 \\ \underline{00} \\ 1 \end{array}$$

$$\begin{array}{r} 20 \text{ r}2 \\ 19 \overline{)382} \\ \underline{38} \\ 02 \\ \underline{0} \\ 2 \end{array}$$

$$\begin{array}{r} 25 \\ 28 \overline{)700} \\ \underline{56} \\ 140 \\ \underline{140} \end{array}$$

$$\begin{array}{r} 53 \\ 17 \overline{)901} \\ \underline{85} \\ 51 \\ \underline{51} \end{array}$$

$$\begin{array}{r} 63 \text{ r}23 \\ 27 \overline{)1724} \\ \underline{162} \\ 104 \\ \underline{81} \\ 23 \end{array}$$

B.

$$\begin{array}{r} 9 \text{ r}6 \\ 33 \overline{)303} \\ \underline{297} \\ 6 \end{array}$$

$$\begin{array}{r} 95 \text{ r}6 \\ 21 \overline{)2001} \\ \underline{189} \\ 111 \\ \underline{105} \\ 6 \end{array}$$

$$\begin{array}{r} 142 \text{ r}6 \\ 7 \overline{)1000} \\ \underline{7} \\ 30 \\ \underline{28} \\ 20 \\ \underline{14} \\ 6 \end{array}$$

$$\begin{array}{r} 32 \\ 75 \overline{)2400} \\ \underline{225} \\ 150 \\ \underline{150} \end{array}$$

$$\begin{array}{r} 84 \text{ r}41 \\ 71 \overline{)6005} \\ \underline{568} \\ 325 \\ \underline{284} \\ 41 \end{array}$$

$$\begin{array}{r} 3001 \\ 3 \overline{)9003} \\ \underline{9} \\ 0003 \\ \underline{3} \end{array}$$

$$\begin{array}{r} 8001 \text{ r}3 \\ 6 \overline{)48009} \\ \underline{48} \\ 0009 \\ \underline{6} \\ 3 \end{array}$$

$$\begin{array}{r} 20720 \\ 3 \overline{)62160} \\ \underline{6} \\ 021 \\ \underline{21} \\ 06 \\ \underline{6} \end{array}$$

$$\begin{array}{r} 50 \text{ r}4 \\ 67 \overline{)3354} \\ \underline{335} \\ 04 \\ \underline{0} \\ 4 \end{array}$$

$$\begin{array}{r} 2009 \text{ r}2 \\ 47 \overline{)94425} \\ \underline{94} \\ 0425 \\ \underline{423} \\ 2 \end{array}$$

$$\begin{array}{r} 61 \\ 231 \overline{)14091} \\ \underline{1386} \\ 231 \\ \underline{231} \end{array}$$

$$\begin{array}{r} 81 \\ 603 \overline{)48843} \\ \underline{4824} \\ 603 \\ \underline{603} \end{array}$$

$$\begin{array}{r} 19 \text{ r}66 \\ 102 \overline{)2004} \\ \underline{102} \\ 984 \\ \underline{918} \\ 66 \end{array}$$

C.

2. (a) 1, 2, 4, 8, 16

(b) $16 = 2 \times 2 \times 2 \times 2$

4. (a) 1, 3, 9, 27

(b) $27 = 3 \times 3 \times 3$

6. (a) 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

(b) $48 = 2 \times 2 \times 2 \times 2 \times 3$

D.

2.
$$\begin{array}{r} 6 \text{ braces} \\ 32 \overline{)192} \\ \underline{192} \end{array}$$

4.
$$\begin{array}{r} 12 \text{ in.} \\ 7 \overline{)84} \\ \underline{7} \\ 14 \\ \underline{14} \end{array}$$

W = 12 in.
H = 8 in.

$$\begin{array}{r} 8 \text{ in.} \\ 7 \overline{)56} \\ \underline{56} \end{array}$$

6.
$$\begin{array}{r} 24 \\ 24 \overline{)576} \\ \underline{48} \\ 96 \\ \underline{96} \end{array} \quad \begin{array}{l} 24 \times 2 = 48 \\ 48 + 2 = 50 \text{ rafters} \end{array}$$

8.
$$\begin{array}{r} 385 \\ 426 \\ 278 \\ 434 \\ 323 \\ + 392 \\ \hline 2,238 \end{array}$$

$$\begin{array}{r} 373 \text{ hp} \\ 6 \overline{)2238} \\ \underline{18} \\ 43 \\ \underline{42} \\ 18 \\ \underline{18} \end{array}$$

10.
$$\begin{array}{r} 9 \text{ +2 = 11 hr} \\ 54 \overline{)486} \\ \underline{486} \end{array}$$

12.
$$\begin{array}{r} 13 \text{ cu ft} \\ 375 \overline{)4875} \\ \underline{375} \\ 1125 \\ \underline{1125} \end{array}$$

14.
$$\begin{array}{r} 36 \text{ days} \\ 500 \overline{)18000} \\ \underline{1500} \\ 3000 \\ \underline{3000} \end{array}$$

16.
$$\begin{array}{r} 27 \text{ patients} \\ 52 \overline{)1404} \\ \underline{104} \\ 364 \\ \underline{364} \end{array}$$

12.
$$\begin{array}{r} 17 \text{ bushels} \\ 48 \overline{)816} \\ \underline{48} \\ 336 \\ \underline{336} \end{array}$$

E.

2. $14,000 \div 100 \times \$41 = \5740

4. $9,108,734 \div 74 = 123,091 \text{ lb}$

6. (a) $11,877,372 \div 738 = 16,094$

(b) $87,445,005 \div 435 = 201,023$

(c) $1,735,080 \div 760 = 2283$

(d) $206,703 \div 579 = 357$

Exercises 1-5 Order of Operations**A.**

2. $20 - 3 \times 2 = 20 - 6 = 14$

4. $16 + 32 \div 4 = 16 + 8 = 24$

6. $2 \times 9 - 4 = 18 - 4 = 14$

8. $64 \div 16 + 8 = 4 + 8 = 12$

10. $(18 - 12) \div 6 = 6 \div 6 = 1$

12. $9 \times (8 + 3) = 9 \times 11 = 99$

14. $8 + 3 \times (9 - 4) = 8 + 3(5) = 8 + 15 = 23$

16. $(17 - 9) \div (6 - 2) = 8 \div 4 = 2$

18. $24 - 8 \div 2 + 6 = 24 - 4 + 6 = 26$

20. $24 \div 8 - 14 - 7 + 8 \times 6 = 3 - 2 + 48 = 49$

22. $54 \div (8 - 3 \times 2) = 54 \div (8 - 6) = 54 \div 2 = 27$

24. $(26 \div 2 - 5) \times 4 = (13 - 5) \times 4 = 8 \times 4 = 32$

26. $24 \div 6 \times 2 = 4 \times 2 = 8$

28. $22 + 11 - 7 = 33 - 7 = 26$

30. $48 \div 6 \div 2 = 8 \div 2 = 4$

32. $18 \div (3 \times 2) = 18 \div 6 = 3$

34. $\frac{36 - 27}{9 - 6} = \frac{9}{3} = 3$

36. $\frac{44}{11} + \frac{12}{3} = 4 + 4 = 8$

38. $\frac{36 - (7 - 4)}{5 + 3 \times 2} = \frac{36 - 3}{5 + 6} = \frac{33}{11} = 3$

40. $8 \times 5 - \frac{2 + 4 \times 12}{18 - 4 \times 2} + 72 \div 9 = 40 - \frac{50}{10} + 8 = 40 - 5 + 8 = 43$

B.

2. $\$468 + 8 \times \$90 = \$468 + \$720 = \$1,188$

4. $520 - (48 \times 5) + 300 = 520 - 240 + 300 = 580$

6. $4 \times 3 + 3 \times 3 + 2 \times 3 = 12 + 9 + 6 = 27$ pounds

8. $(200 \times 6 + 200 \times 10) \div 80 \times \$7 = (1200 + 2000) \div 80 \times \7
 $= 3200 \div 80 \times \$7$
 $= 40 \times \$7 = \280

$$\begin{aligned} 10. \quad (a) \quad 20 \times \$3 + (32 - 20) \times \$4 &= 20 \times \$3 + 12 \times \$4 \\ &= \$60 + \$48 = \$108 \end{aligned}$$

$$\begin{aligned} (b) \quad 20 \times \$3 + 30 \times \$4 + (94 - 50) \times \$5 \\ &= 20 \times \$3 + 30 \times \$4 + 44 \times \$5 \\ &= \$60 + \$120 + \$220 = \$400 \end{aligned}$$

$$\begin{aligned} (c) \quad 20 \times \$3 + 30 \times \$4 + 50 \times \$5 + (121 - 100) \times \$6 \\ &= 20 \times \$3 + 30 \times \$4 + 50 \times \$5 + 21 \times \$6 \\ &= \$60 + \$120 + \$250 + \$126 = \$556 \end{aligned}$$

C.

$$2. \quad 425 \div 25 + 386 = 17 + 386 = 403$$

$$4. \quad 1496 - 18 \times 13 = 1496 - 234 = 1262$$

$$6. \quad 2472 \times (1169 - 763) = 2472 \times 406 = 1,003,632$$

$$8. \quad 12 \times 38 + 46 \times 19 - 1560 \div 24 = 456 + 874 - 65 = 1265$$

$$10. \quad 273 + 25 \times (362 + 147) = 273 + 25 \times (509) = 273 + 12,725 = 12,998$$

$$12. \quad 973 - (481 + 327) = 973 - 808 = 165$$

$$14. \quad (27 \times 18 - 66) \div 14 = 420 \div 14 = 30$$

$$16. \quad \frac{391}{17} + \frac{4984}{89} - \frac{1645}{47} = 23 + 56 - 35 = 44$$

Problem Set 1**A.**

2. Six thousand, seven hundred ten
4. One hundred thirty-seven thousand, five hundred eighty-nine
6. Nine hundred seventy thousand, one
8. One million, five hundred twenty-eight thousand, six hundred forty-three
10. 6327 12. 5,098,107 14. 852,000,000
16. 5500 18. 94,700 20. 710,000

B.

2.
$$\begin{array}{r} 38 \\ + 45 \\ \hline 83 \end{array}$$
4.
$$\begin{array}{r} 43 \\ + 817 \\ \hline 860 \end{array}$$
6.
$$\begin{array}{r} 2074 \\ + 906 \\ \hline 2980 \end{array}$$
8.
$$\begin{array}{r} 93 \\ - 67 \\ \hline 26 \end{array}$$
10.
$$\begin{array}{r} 315 \\ - 119 \\ \hline 196 \end{array}$$
12.
$$\begin{array}{r} 3401 \\ - 786 \\ \hline 2615 \end{array}$$
14.
$$\begin{array}{r} 489 \\ \times 7 \\ \hline 3423 \end{array}$$
16.
$$\begin{array}{r} 45 \\ \times 82 \\ \hline 90 \\ 360 \\ \hline 3690 \end{array}$$
18.
$$\begin{array}{r} 314 \\ \times 926 \\ \hline 1884 \\ 628 \\ \hline 2826 \\ 290764 \\ \hline \text{or } 290,764 \end{array}$$
20.
$$\begin{array}{r} 4018 \\ \times 392 \\ \hline 8036 \\ 36162 \\ \hline 12054 \\ 1575056 \\ \hline \text{or } 1,575,056 \end{array}$$
22.
$$\begin{array}{r} 213 \\ 8 \overline{)1704} \\ \underline{16} \\ 10 \\ 8 \\ \hline 24 \\ \underline{24} \\ 0 \end{array}$$
24.
$$\begin{array}{r} 62 \\ 34 \overline{)2108} \\ \underline{204} \\ 68 \\ \underline{68} \\ 0 \end{array}$$
26.
$$\begin{array}{r} 43 \\ 263 \overline{)11309} \\ \underline{1052} \\ 789 \\ \underline{789} \\ 0 \end{array}$$
28.
$$\frac{23 \times 51}{17} = \frac{1173}{17} = 69$$
30.
$$(18 + 5 \times 9) \div 7 = (18 + 45) \div 7 = 63 \div 7 = 9$$
32.
$$32 \div 4 + 16 \div 2 \times 4 = 8 + 8 \times 4 = 8 + 32 = 40$$
34.
$$\begin{array}{r} 139 \\ 407 \\ + 81 \\ \hline 627 \end{array}$$
36.
$$\begin{array}{r} 194 \\ 271 \\ + 368 \\ \hline 833 \end{array}$$

C.

2. (a) 1, 2, 4, 7, 14, 28

(b) $28 = 2 \times 2 \times 7$

4. (a) 1, 5, 7, 35

(b) $35 = 5 \times 7$

6. (a) 1, 2, 3, 6, 7, 14, 21, 42

(b) $42 = 2 \times 3 \times 7$

D.

$$\begin{array}{r} 14 \\ 23 \\ 8 \\ + 19 \\ \hline 64 \text{ rods} \end{array}$$

4. $2 \times 7 \times 12 = 168$ tablets

$$\begin{array}{r} 24 \text{ hours} \\ 90 \overline{)2160} \\ \underline{180} \\ 360 \\ \underline{360} \end{array}$$

$$\begin{array}{r} 234 \\ \times \$5 \\ \hline \$1170 \end{array}$$

$$\begin{array}{r} 45 \\ \times 30 \\ \hline 1350 \text{ mV} \end{array}$$

$$\begin{array}{r} \$ 55724 \\ 47162 \\ + 62473 \\ \hline \$ 165359 \text{ or } \$165,359 \end{array}$$

$$\begin{array}{r} 170 \\ 118 \\ 206 \\ 19 \\ \hline 513 \text{ boards} \end{array}$$

$$\begin{array}{r} (b) \quad 170 \times 10 = 1700 \\ 118 \times 12 = 1416 \\ 206 \times 8 = 1648 \\ 19 \times 16 = \underline{304} \\ 5068 \text{ ft} \end{array}$$

16. $17 \times 3 + 212 = 15 + 212 = 263^\circ$

$$\begin{aligned} 18. \quad & 3 \times \$45 + 3 \times 3 \times \$15 + \$9 \\ & = \$135 + \$135 + \$9 \\ & = \$279 \end{aligned}$$

$$\begin{array}{r} 645 \\ 24 \overline{)15500} \\ \underline{144} \\ 110 \\ \underline{96} \\ 140 \\ \underline{120} \\ 20 \end{array} \quad +1 = 646 \text{ boxes}$$

22. $164 - 9 \times 7 = 164 - 63 = 101 \text{ lb}$

24. $120 \text{ pF} + 450 \text{ pF} + 350 \text{ pF} + 75 \text{ pF} + 150 \text{ pF} = 1145 \text{ pF}$

$$\begin{array}{r} 22 \\ \times 8 \\ \hline 176 \text{ hours} \end{array}$$

$$\begin{array}{r} 176 \\ \times 24 \\ \hline 704 \\ 352 \\ \hline \$4224 \end{array}$$

$$\begin{array}{r} (b) \quad 176 \\ \times 28 \\ \hline 1408 \\ 352 \\ \hline \$4928 \end{array}$$

$$\begin{array}{r} (c) \quad \$4928 \\ - 500 \\ \hline \$4428 \end{array}$$

(d) Company B

28. (a) $72 \div 8 = 9$ smaller containers
 (b) $72 \div 18 = 4$ larger containers
 (c) Cost of smaller containers = $9 \times \$4 = \36
 Cost of larger containers = $4 \times \$6 = \24
 You save $\$36 - \$24 = \$12$ by purchasing the larger-sized containers.

30. Labor Cost = $6 \times \$55 + 11 \times \$40 + 33 \times \$25$
 $= \$330 + \$440 + \$825$
 $= \$1595$

32.
$$\begin{array}{r} 205 \text{ months} \\ 80 \overline{)16400} \\ \underline{160} \\ 40 \\ \underline{0} \\ 400 \\ \underline{400} \\ 0 \end{array} \qquad \begin{array}{r} 17 \\ 12 \overline{)205} \\ \underline{12} \\ 85 \\ \underline{84} \\ 1 \end{array} \qquad 17 \text{ yr, 1 mo}$$

34.
$$\begin{array}{r} \$ 33 \\ \times 8 \\ \hline \$264 \end{array} \qquad \begin{array}{r} \$ 264 \\ - 220 \\ \hline \$ 44 \end{array} \qquad \text{Save \$44 by purchasing the set.}$$

36. <u>Nissan Leaf</u>	<u>Prius Hybrid</u>	<u>Hyundai Elantra</u>
\$ 28100	\$ 25280	\$ 18805
2760	2700	4090
<u>+ 855</u>	<u>+ 303</u>	<u>+ 1116</u>
\$ 31715	\$ 28283	\$ 24011
<u>- 15700</u>	<u>- 12460</u>	<u>- 12035</u>
\$ 16015 or \$16,015	\$ 15823 or \$15,823	\$ 11976 or \$11,976