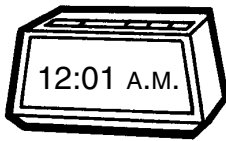
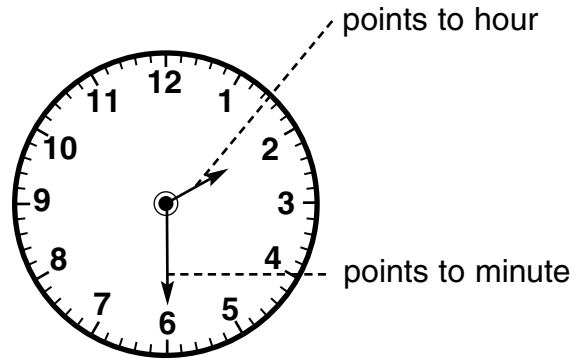
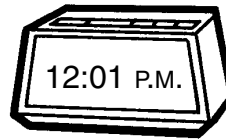


Facts to Know

- There are 60 seconds in 1 minute.
- There are 60 minutes in 1 hour.
- There are 24 hours in 1 day.
- Time is measured on a clock in 12-hour segments.
- The short hand points to the hour. The long hand points to the minute.
- Morning—A.M.—includes the hours from midnight to noon, from 12:00 A.M. through 11:59 A.M.
- Afternoon—P.M.—includes the hours from noon to midnight. The afternoon time is from 12:00 P.M. through 11:59 P.M.



one minute
after midnight



one minute
after noon

Computing Time

To compute elapsed time within the morning, subtract the smaller number from the higher one. Computing time within the afternoon is done the same way.

The time from 7:15 A.M. to 10:30 A.M.
is done this way:

$$\begin{array}{r} 10:30 \\ - 7:15 \\ \hline 3:15 \text{ (3 hours and 15 minutes)} \end{array}$$

The time from 6:35 P.M. to 9:00 P.M.
is done this way:

$$\begin{array}{r} 9:00 \\ - 6:35 \\ \hline 2:25 \text{ (2 hours and 25 minutes)} \end{array}$$

When going from A.M. to P.M. or from P.M. to A.M., you regroup 60 minutes (not 10 or 100).

The time from 9:00 P.M. to 6:30 A.M. is computed this way:

Step 1

$$\begin{array}{r} 12:00 \text{ midnight} \\ - 9:00 \\ \hline 3:00 \text{ hrs.} \end{array}$$

Step 2

$$\begin{array}{r} 3:00 \text{ (Add)} \\ + 6:30 \text{ (12:00 midnight to 6:30 A.M. is 6 hrs. and 30 min.)} \\ \hline 9:30 \text{ (9 hours and 30 minutes)} \end{array}$$

How long is it from 10:00 A.M. to 2:30 P.M.?

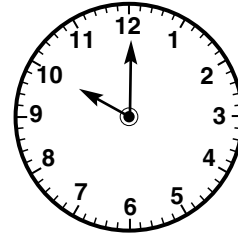
Subtract 10:00 from 12:00. This equals 2 hours.

2:30 P.M. is 2 ½ hours after noon.

Add 2 hours + 2 ½ hours = 4 ½ hours.

The answer is 4 ½ hours.

$$\begin{array}{r} 12:00 \\ - 10:00 \\ \hline 2:00 \\ + 2:30 \\ \hline 4:30 \end{array}$$



Directions: Use the information on page 37 to help you compute these times.

How much time is there between:

1. 7:00 A.M. and 10:15 A.M.

2. 3:00 A.M. and 6:45 A.M.

3. 9:00 P.M. and 11:30 P.M.

4. 6:00 P.M. and 10:45 P.M.

5. 8:15 A.M. and 11:50 A.M.

6. 4:15 P.M. and 10:40 P.M.

7. 7:30 A.M. and 10:00 A.M.

8. 4:30 P.M. and 11:00 P.M.

9. 3:45 P.M. and 6:00 P.M.

10. 8:55 A.M. and 10:00 A.M.

11. 7:45 P.M. and 10:15 P.M.

12. 2:30 A.M. and 8:00 A.M.

13. 9:45 A.M. and 12:00 noon

14. 7:50 P.M. and 12:00 midnight

Directions: Try these. Remember to borrow 60 minutes (not 10 or 100) when you need to borrow time.

15. 10:00 A.M. and 1:00 P.M.

16. 7:00 A.M. and 3:00 P.M.

17. 9:00 P.M. and 4:00 A.M.

18. 11:00 P.M. and 6:30 A.M.

19. 4:00 P.M. and 5:00 A.M.

20. 8:00 A.M. and 6:45 P.M.

Challenge: How much time is there between 5:36 P.M. and 11:52 A.M.? _____



Answer Key (cont.)

Page 32

1. 214° F
2. 189° F
3. 147° F
4. 265° F
5. 219° F

Page 34

1. 6 tsp.
2. 12 tsp.
3. 24 tsp.
4. 48 tsp.
5. 30 tsp.
6. 72 tsp.
7. Answers will vary.
8. Answers will vary.
9. Answers will vary.
10. Answers will vary.
11. Answers will vary.
12. Answers will vary.
13. Answers will vary.
14. Answers will vary.
15. 8 fl. oz.
16. 24 fl. oz.
17. 32 fl. oz.
18. 48 fl. oz.
19. 64 fl. oz.
20. 80 fl. oz.
21. 320 fl. oz.

Page 35

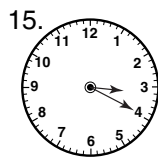
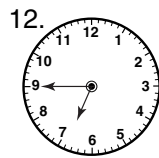
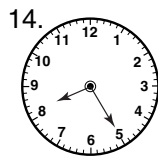
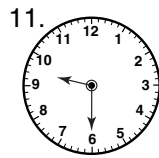
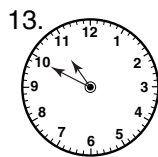
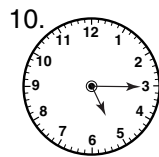
1. 8 fl. oz.
2. 16 fl. oz.
3. 24 fl. oz.
4. 32 fl. oz.
5. 40 fl. oz.
6. 56 fl. oz.
7. 64 fl. oz.
8. 80 fl. oz.
9. 32 fl. oz.
10. 6 cups
11. 12 fl. oz.
12. 64 fl. oz.
13. 256 fl. oz.
14. 40 fl. oz.
15. 184 fl. oz.
16. 352 fl. oz.

Page 36

1. 4 cups
2. 8 cups
3. 16 cups
4. 16 cups
5. 4 cups
6. 32 cups
7. 8 cups
8. 24 cups
9. 10 cups
10. 10 cups
11. 2 pints
12. 4 pints
13. 6 pints
14. 8 pints
15. 14 pints
16. 16 pints
17. 4 pints
18. 24 pints
19. 10 pints
20. 7 pints
21. 6 quarts
22. 10 quarts
23. 80 pints
24. 120 pints
25. 160 quarts
26. 36,000 quarts; 72,000 pints

Page 38

1. 6:05
2. 6:15
3. 12:00
4. 5:10
5. 11:30
6. 8:45
7. 3:20
8. 9:35
9. 2:50



Page 39

1. A.M.
2. P.M.
3. P.M.
4. A.M.
5. P.M.
6. P.M.
7. P.M.
8. P.M.
9. A.M.
10. A.M.
11. P.M.
12. P.M.

Page 40

1. 3 hr. 15 min.
 2. 3 hr. 45 min.
 3. 2 hr. 30 min.
 4. 4 hr. 45 min.
 5. 3 hr. 35 min.
 6. 6 hr. 25 min.
 7. 2 hr. 30 min.
 8. 6 hr. 30 min.
 9. 2 hr. 15 min.
 10. 1 hr. 5 min.
 11. 2 hr. 30 min.
 12. 5 hr. 30 min.
 13. 2 hr. 15 min.
 14. 4 hr. 10 min.
 15. 3 hr.
 16. 8 hr.
 17. 7 hr.
 18. 7 hr. 30 min.
 19. 13 hr.
 20. 10 hr. 45 min.
- Challenge: 18 hr. 16 min.

Page 41

1. 5 miles
2. 4 miles
3. 10 miles
4. 6 miles
5. 30 miles
6. 20 m.p.h. faster
7. 12 m.p.h. faster
8. 23 m.p.h. faster
9. 10 miles
10. 32 days

Page 42

1. 3 m.p.h.
2. 2 m.p.h.
3. 40 m.p.h.
4. 40 m.p.h.
5. 30 m.p.h.
6. 5 m.p.h.
7. 40 m.p.h.
8. 15 m.p.h.
9. 4 m.p.h.
10. 4 m.p.h.

Page 43

1. 3 weeks
 2. 4 Fridays
 3. 4 Sundays
 4. 31 days
 5. 22; Monday
 6. 7; Wednesday
 7. No; it has too many days
 8. No; June has only 30 days
 9. Yes; July has 31 days
 10. 31; Wednesday
- Challenge: 19; Monday

Page 44

1. 2 leap years
2. April
3. July
4. October
5. 13 weeks
6. 91 days
7. 20 leap years
8. 1,461 days
9. 30 days
10. 84 days
11. 60th day
12. 306 days
13. 185th or 186th day
14. 180 days
15. 7 leap years

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Answers will vary.