

# Calendar Computation

21

## Facts and Reminders

### Months

This is a typical calendar for one month:

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	26	26	27
28	29	30	31			

There are always seven days in a week. A week will often continue on to the next month. Any day of the week—such as a Sunday—is always seven days after the previous Sunday and seven days before the next Sunday.

These months have 30 days:

April          June          September          November

These months have 31 days:

January          March          May          July          August          October          December

(Note: February has 28 days except leap year when it has 29 days.)

### Years

Look at the following information about years:

1 year = 12 months

1 year = 365 days

100 years = 1 century

1 year = 52 weeks

10 years = 1 decade

1,000 years = 1 millennium

### Leap Years

- Leap years are scheduled every four years on years ending with a multiple of 4. Leap years usually coincide with presidential election years in the United States.
- A leap year has 366 days. Leap years are not scheduled for the first year of a century unless the year is divisible by 400. The year 2000 is evenly divisible by 400 and thus is a leap year. The year 1900 is not evenly divisible by 400 and thus was not a leap year.

#### Recent and Future Leap Years

1992

1996

2000

2004

2008

# Calendar Computation

## A Calendar Month

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

**Directions:** Study the Facts and Reminders page for this unit and examine the calendar shown here. Use the calendar to answer these questions.

1. How many days are in this month? \_\_\_\_\_
2. Which months of the year could this calendar represent?  
\_\_\_\_\_  
\_\_\_\_\_
3. Which months of the year could this calendar not represent?  
\_\_\_\_\_
4. How many Mondays are in this month? \_\_\_\_\_
5. How many Fridays are in this month? \_\_\_\_\_
6. How many Tuesdays are in this month? \_\_\_\_\_
7. Which days of the week have the most days for this month?  
\_\_\_\_\_
8. How many full 7-day weeks beginning on Sunday are in this month? \_\_\_\_\_
9. If you have a test exactly two weeks from the 5th, what are the date and day of your test?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
10. If you have an appointment two weeks after the 11th, what are the date and the day of the week for your appointment?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
11. What will be the date and day of the week two weeks after the 31st?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
12. What will be the date and day of the week one week after the 29th?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_

# Calendar Computation

## Computing on a Calendar

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

**Directions:** Study the Facts and Reminders page for this unit and examine the calendar shown here. Use the calendar to answer these questions.

- Which months of the year could this calendar represent?  
\_\_\_\_\_
- If you have a game three weeks from the 7th, what are the date and day of the week?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
- How many school days could be in this month? \_\_\_\_\_
- How many weekend days are represented in this month? \_\_\_\_\_
- What is the first weekday of this month? \_\_\_\_\_
- What is the last weekday of this month? \_\_\_\_\_
- If this month is in the spring, what month is it? \_\_\_\_\_
- If you have a dental appointment four weeks from the 12th, what are the day and date of your appointment?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
- If your friend's birthday is the 11th of the next month, on what day will the birthday occur?  
Day of the Week \_\_\_\_\_
- If your birthday is four weeks after the last Tuesday in this month, what are the date and day of your birthday?  
Date \_\_\_\_\_ Day of the Week \_\_\_\_\_
- Could your birthday be in this month? Explain. \_\_\_\_\_
- Could Abraham Lincoln or George Washington have a birthday in this month?  
Explain. \_\_\_\_\_

# Calendar Computation

## Leap Year

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29				

**Directions:** Study the Facts and Reminders page for this unit and examine the calendar shown here to answer these questions.

1. What month is this? \_\_\_\_\_
2. Could this be the year 2001 or 2002? Explain. \_\_\_\_\_  
\_\_\_\_\_
3. What are the month and date three weeks from the last day of the month?  
Month \_\_\_\_\_ Date \_\_\_\_\_
4. What are the month and date four weeks before the first day of the month?  
Month \_\_\_\_\_ Date \_\_\_\_\_
5. What are the month and date four weeks from the last Saturday of the month?  
Month \_\_\_\_\_ Date \_\_\_\_\_
6. What day of the 366-day year is the 29th of February? \_\_\_\_\_
7. How many days of the year are left after February 29th? \_\_\_\_\_
8. If you are 11 years old, how many leap years would you have lived through? \_\_\_\_\_
9. If your grandmother were 62 years old, how many leap years would she have lived through? \_\_\_\_\_
10. Which of these years is the next century to be a leap year: 2100, 2200, 2300, or 2400? Explain. \_\_\_\_\_  
\_\_\_\_\_

**Directions:** Fill in the dates for the first week of the month following the month above.

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.

# Answer Key

## Page 88

1. 31
2. January, March, May, July, August, October, December
3. February, April, June, September, November
4. 5
5. 4
6. 5
7. Mondays, Tuesdays, Wednesdays
8. 3
9. 19th, Friday
10. 25th, Thursday
11. 14th, Wednesday
12. 5th, Monday

## Page 89

1. April, June, September, November
2. 28th, Friday
3. 20
4. 10
5. Monday the 3rd
6. Friday the 28th
7. April
8. 10th, Wednesday
9. Thursday
10. 23rd, Tuesday
11. Answer will vary.
12. No, because February never has 30 days.

## Page 90

1. February
2. No, they are not leap years and not evenly divisible by 400.
3. March, 21st
4. January, 4th
5. March, 25th
6. 60th
7. 306
8. 2 or 3
9. 15 or 16
10. 2400, It is the only century evenly divisible by 400.

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
			1	2	3	4

## Page 92

1. 2 pennies, 1 nickel, 2 quarters
2. 16 pennies, 1 nickel
3. 1 penny, 2 dimes, 3 quarters
4. 2 pennies, 2 nickels, 1 dime
5. 4 pennies, 2 nickels, 1 quarter
6. 3 pennies, 1 quarter, 1 half dollar

## Page 93

1. 1 penny, 2 nickels, 8 quarters or 1 penny, 1 half dollar, 5 quarters, 3 dimes, 1 nickel
2. 3 pennies, 8 quarters, 2 half dollars
3. 2 pennies, 10 dimes, 7 quarters, 1 half dollar
4. 1 penny, 18 quarters
5. 2 pennies, 4 nickels, 1 quarter, 7 half dollars
6. 4 pennies, 1 dime, 2 half dollars, 12 quarters
7. 10 dimes, 17 pennies
8. 28 quarters, 1 dime, 3 nickels, 5 pennies

## Page 94

1. 20 quarters, 2 pennies, 1 nickel, 3 dimes
2. 39 dimes, 11 nickels, 4 pennies
3. 80 quarters, 15 dimes, 1 nickel
4. 4 half dollars, 9 pennies, 15 dimes, 80 quarters
5. 1 dime, 34 quarters, 8 nickels
6. 3 nickels, 1 half dollar, 160 quarters, 80 dimes
7. 72 quarters, 26 dimes, 1 nickel, 1 penny
8. 3 pennies, 20 dimes, 10 nickels, 5 quarters

## Page 96

1. congruent
2. similar
3. congruent
4. congruent
5. similar
6. congruent
7. similar
8. neither
9. congruent
10. neither

## Page 100

- |          |            |
|----------|------------|
| 1. 6     | 12. 35.1   |
| 2. 16    | 13. 15.84  |
| 3. 10    | 14. 73.6   |
| 4. 48    | 15. 19     |
| 5. 54.4  | 16. 22.68  |
| 6. 10.5  | 17. 153    |
| 7. 62    | 18. 141.12 |
| 8. 14    | 19. 30.15  |
| 9. 194   | 20. 450    |
| 10. 15.4 | 21. 351    |
| 11. 49   |            |

## Page 101

- |          |            |
|----------|------------|
| 1. 100   | 12. 135    |
| 2. 60    | 13. 400    |
| 3. 72    | 14. 180    |
| 4. 300   | 15. 16     |
| 5. 105.6 | 16. 250    |
| 6. 25    | 17. 91     |
| 7. 95    | 18. 126    |
| 8. 120   | 19. 59.69  |
| 9. 270   | 20. 195.98 |
| 10. 240  | 21. 1519   |
| 11. 39   |            |

## Page 102

- |          |          |
|----------|----------|
| 1. 12    | 9. 18.8  |
| 2. 24    | 10. 9.9  |
| 3. 40    | 11. 18.2 |
| 4. 21    | 12. 33.6 |
| 5. 31.5  | 13. 40   |
| 6. 50.4  | 14. 77   |
| 7. 43.5  | 15. 1.75 |
| 8. 122.4 |          |

## Page 104

1. least smart (Curly), smartest (Slick)
2. least smart (Buster), smartest (You)
3. fewest teeth (Elmer), most teeth (Buster) Elmer (1 tooth), Beetle (2 teeth), Nick (3 teeth), Dipsy (4 teeth), Daisy (5 teeth), Curly (6 teeth), Buster (7 teeth)

## Page 105

1. weighs the least (Curly), weighs the most (Daisy) Curly (100 pounds), Rocket (160 pounds), Buster (200 pounds), Molly (280 pounds), Daisy (380 pounds)
2. shortest (Dipsy), tallest (Nosey) Dipsy (120 cm), Elmer (125 cm), Lanky (133 cm), Molly (139 cm), Buster (148 cm), Hairy (158 cm), Nosey (168 cm)
3. Lanky, Buster, Hairy, Elmer, Dipsy, Nosey, Dandy

## Page 106

1. Rocket \$50, Daisy \$100, Dipsy \$200, Fussy \$400
2. youngest (Molly), oldest (Curly) Molly (5), Buster (6), Beetle (8), Nick (9), Doc (10), Mickey (11), Rocket (12), Curly (14)
3. eats the least (Curly), eats the most (Mickey) Curly (1.25), Beetle (2.5), Elmer (10), Dipsy (40), Molly (80), Daisy (320), Buster (640), Mickey (1280)