# Addition Fact Families (No two-digit addition is included.)

## One Family

$$\begin{array}{r} 0 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,0 \\ \hline \end{array}$$

## Two Family

$$\begin{array}{r} 0 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,0 \\ \hline \end{array}$$

## Three Family

$$\begin{array}{r} 0 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,0 \\ \hline \end{array}$$

## Four Family

$$\begin{array}{r} 0 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,0 \\ \hline \end{array}$$

## Five Family

$$\begin{array}{r} 0 \\ +\,5 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ +\,0 \\ \hline \end{array}$$

## Six Family

$$\begin{array}{r} 0 \\ +\,6 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,5 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\,0 \\ \hline \end{array}$$

## Seven Family

$$\begin{array}{r} 0 \\ +\,7 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,6 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,5 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ +\,0 \\ \hline \end{array}$$

## Eight Family

$$\begin{array}{r} 0 \\ +\,8 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,7 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,6 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,5 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ +\,0 \\ \hline \end{array}$$

## Nine Family

$$\begin{array}{r} 0 \\ +\,9 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ +\,8 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ +\,7 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ +\,6 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ +\,5 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ +\,4 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ +\,3 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ +\,2 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ +\,1 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ +\,0 \\ \hline \end{array}$$

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## Addition Fact Families (cont.)

### Ten Family

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 | +5 | +4 | +3 | +2 | +1 |

### Eleven Family

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 | +5 | +4 | +3 | +2 |

### Twelve Family

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 | +5 | +4 | +3 |

### Thirteen Family

| | | | | | |
|---|---|---|---|---|---|
| 4 | 5 | 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 | +5 | +4 |

### Fourteen Family

| | | | | |
|---|---|---|---|---|
| 5 | 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 | +5 |

### Fifteen Family

| | | | |
|---|---|---|---|
| 6 | 7 | 8 | 9 |
| +9 | +8 | +7 | +6 |

### Sixteen Family

| | | |
|---|---|---|
| 7 | 8 | 9 |
| +9 | +8 | +7 |

### Seventeen Family

| | |
|---|---|
| 8 | 9 |
| +9 | +8 |

### Eighteen Family

| |
|---|
| 9 |
| +9 |

# Addition Fact Challenge How fast can you say all 81 sums?

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 4 + 3 | 9 + 9 | 5 + 6 | 1 + 1 | 3 + 4 | 0 + 9 | 9 + 7 | 7 + 6 | 4 + 7 |
| 2. | 0 + 5 | 1 + 6 | 6 + 8 | 9 + 3 | 2 + 0 | 3 + 6 | 9 + 1 | 8 + 6 | 0 + 4 |
| 3. | 2 + 5 | 5 + 0 | 9 + 4 | 6 + 9 | 4 + 2 | 0 + 1 | 2 + 1 | 6 + 4 | 1 + 8 |
| 4. | 9 + 8 | 2 + 3 | 8 + 7 | 4 + 6 | 0 + 8 | 7 + 7 | 3 + 0 | 1 + 5 | 2 + 8 |
| 5. | 5 + 2 | 9 + 6 | 8 + 9 | 6 + 6 | 8 + 2 | 7 + 5 | 3 + 2 | 0 + 7 | 3 + 3 |
| 6. | 9 + 5 | 4 + 8 | 1 + 3 | 2 + 6 | 3 + 7 | 6 + 3 | 8 + 8 | 6 + 1 | 9 + 9 |
| 7. | 0 + 3 | 7 + 4 | 3 + 9 | 7 + 8 | 2 + 7 | 1 + 2 | 5 + 9 | 0 + 2 | 5 + 5 |
| 8. | 2 + 4 | 5 + 8 | 2 + 9 | 1 + 0 | 7 + 3 | 1 + 9 | 8 + 5 | 5 + 7 | 6 + 7 |
| 9. | 6 + 5 | 5 + 1 | 3 + 5 | 8 + 3 | 4 + 5 | 4 + 1 | 8 + 4 | 1 + 4 | 0 + 6 |

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# Addition Fact Fun

| + | 6 | 4 | 8 | 0 | 1 | 2 | 9 | 3 | 5 | 7 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | | | | | | | | | | | |

| + | 4 | 6 | 10 | 8 | 2 | 3 | 5 | 1 | 9 | 7 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | | | | | | | | | | | |

| + | 10 | 2 | 3 | 4 | 7 | 0 | 8 | 5 | 9 | 6 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | | | | | | |

| + | 2 | 5 | 8 | 1 | 10 | 3 | 6 | 4 | 0 | 7 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | | | | | | | | | | | |

| + | 4 | 5 | 10 | 0 | 8 | 2 | 6 | 9 | 3 | 1 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | | | | | | |

| + | 8 | 2 | 9 | 6 | 0 | 7 | 1 | 4 | 3 | 10 | 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | | | | | | |

| + | 7 | 10 | 3 | 0 | 1 | 5 | 9 | 2 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | | | | | | | | | | | |

# Addition with Carrying

**1.** 5,732 + 8,957 + 4,639

**2.** 7,939 + 652 + 8,204

**3.** $69.99 + 32.58 + 9.38

**4.** 6,162 + 7,325 + 5,183

**5.** 7,852 + 6,198 + 8,948

**6.** 983 + 659 + 742 + 855

**7.** 480 + 975 + 488 + 932

**8.** 294 + 789 + 357 + 489

**9.** $8.95 + 7.86 + 3.25 + 4.10

**10.** $6.50 + .95 + 8.88 + 9.98

**11.** 57,942 + 68,783 + 53,904 + 18,155

**12.** 15,031 + 76,372 + 19,849 + 6,725

**13.** $150.10 + 78.95 + 793.56 + 455.83

**14.** 99,999 + 88,888 + 77,777 + 66,666

**15.** 72,483 + 9,516 + 7,402 + 89,395

**16.** $89.52 + 78.41 + 16.52 + 7.93 + 4.06 + 32.51

**17.** 6,541 + 7,803 + 9,587 + 1,258 + 3,914 + 7,852

**18.** 2,525 + 4,242 + 7,878 + 5,959 + 8,484

**19.** $11.88 + 9.57 + 35.19 + 42.75 + 87.29

**20.** 7,063 + 9,538 + 1,503 + 6,871 + 2,448

**21.** 24,563 + 87,925 + 42,814 + 76,427 + 11,852

**22.** $137.16 + 89.32 + 483.76 + 819.25 + 247.16

**23.** 50,726 + 97,034 + 15,355 + 53,495 + 75,617

**24.** 89,450 + 75,038 + 19,915 + 7,844 + 64,925

**25.** 93,247 + 3,847 + 973 + 78,492 + 1,616 + 87,924

**26.** 87 + 25 = _____

**27.** 59 + 73 = _____

**28.** 69 + 34 = _____

**29.** 132 + 236 = _____

**30.** 109 + 732 = _____

**31.** 387 + 825 = _____

**32.** 375 + 584 = _____

**33.** $.56 + .78 = _____

**34.** 419 + 751 = _____

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# Subtraction Fact Families (No two-digit subtraction is included.)

## One Family

$$\begin{array}{r} 1 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 1 \\ -\,1 \\ \hline \end{array}$$

## Two Family

$$\begin{array}{r} 2 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 2 \\ -\,1 \\ \hline \end{array}$$

## Three Family

$$\begin{array}{r} 3 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 3 \\ -\,1 \\ \hline \end{array}$$

## Four Family

$$\begin{array}{r} 4 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 4 \\ -\,3 \\ \hline \end{array}$$

## Five Family

$$\begin{array}{r} 5 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ -\,5 \\ \hline \end{array}$$

## Six Family

$$\begin{array}{r} 6 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,6 \\ \hline \end{array} \qquad \begin{array}{r} 6 \\ -\,5 \\ \hline \end{array}$$

## Seven Family

$$\begin{array}{r} 7 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,6 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,5 \\ \hline \end{array} \qquad \begin{array}{r} 7 \\ -\,7 \\ \hline \end{array}$$

## Eight Family

$$\begin{array}{r} 8 \\ -\,5 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,7 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,6 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ -\,8 \\ \hline \end{array}$$

## Nine Family

$$\begin{array}{r} 9 \\ -\,0 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,1 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,9 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,2 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,5 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,3 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,4 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,8 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,6 \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ -\,7 \\ \hline \end{array}$$

## Subtraction Fact Families (cont.)

### Ten Family

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| −4 | −2 | −1 | −3 | −9 | −5 | −6 | −8 | −7 |

### Eleven Family

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| −5 | −2 | −7 | −3 | −4 | −9 | −6 | −8 |

### Twelve Family

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| −3 | −7 | −4 | −8 | −5 | −6 | −9 |

### Thirteen Family

| | | | | | |
|---|---|---|---|---|---|
| 13 | 13 | 13 | 13 | 13 | 13 |
| −6 | −4 | −8 | −5 | −7 | −9 |

### Fourteen Family

| | | | | |
|---|---|---|---|---|
| 14 | 14 | 14 | 14 | 14 |
| −5 | −7 | −6 | −9 | −8 |

### Fifteen Family

| | | | |
|---|---|---|---|
| 15 | 15 | 15 | 15 |
| −8 | −6 | −7 | −9 |

### Sixteen Family

| | | |
|---|---|---|
| 16 | 16 | 16 |
| −7 | −9 | −8 |

### Seventeen Family

| | |
|---|---|
| 17 | 17 |
| −8 | −9 |

### Eighteen Family

| |
|---|
| 18 |
| −9 |

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## Subtraction Fact Challenge How fast can you say all 81 differences?

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 13 − 8 | 2 − 2 | 9 − 3 | 18 − 9 | 16 − 7 | 5 − 5 | 7 − 1 | 12 − 8 | 15 − 6 |
| 2. | 4 − 0 | 6 − 5 | 16 − 9 | 13 − 7 | 6 − 2 | 11 − 7 | 1 − 1 | 17 − 9 | 9 − 6 |
| 3. | 7 − 7 | 12 − 6 | 15 − 8 | 4 − 2 | 11 − 9 | 9 − 8 | 10 − 9 | 5 − 1 | 15 − 9 |
| 4. | 10 − 4 | 11 − 3 | 7 − 2 | 14 − 7 | 12 − 9 | 6 − 6 | 8 − 5 | 11 − 5 | 3 − 0 |
| 5. | 8 − 2 | 14 − 9 | 8 − 8 | 12 − 4 | 6 − 3 | 8 − 0 | 13 − 4 | 4 − 4 | 11 − 6 |
| 6. | 7 − 5 | 8 − 7 | 10 − 6 | 14 − 5 | 2 − 0 | 8 − 4 | 10 − 2 | 13 − 6 | 5 − 2 |
| 7. | 3 − 3 | 12 − 7 | 10 − 8 | 7 − 3 | 16 − 8 | 4 − 1 | 8 − 6 | 7 − 4 | 14 − 8 |
| 8. | 3 − 2 | 14 − 6 | 7 − 6 | 8 − 1 | 10 − 7 | 13 − 5 | 5 − 3 | 12 − 5 | 10 − 3 |
| 9. | 17 − 8 | 7 − 0 | 15 − 7 | 13 − 9 | 8 − 3 | 5 − 4 | 9 − 2 | 10 − 5 | 12 − 3 |

# Subtraction with Borrowing

## Two-digit Subtraction

| | | | | | |
|---|---|---|---|---|---|
| **1.** 20 − 7 | **2.** 80 − 21 | **3.** 50 − 16 | **4.** 40 − 38 | **5.** 90 − 76 | **6.** 30 − 19 |
| **7.** 32 − 14 | **8.** 56 − 37 | **9.** 41 − 33 | **10.** 82 − 56 | **11.** 73 − 45 | **12.** 65 − 28 |

## Three-digit Subtraction

| | | | | |
|---|---|---|---|---|
| **13.** 100 − 69 | **14.** 700 − 251 | **15.** 400 − 309 | **16.** 600 − 58 | **17.** 900 − 630 |
| **18.** 203 − 58 | **19.** 651 − 275 | **20.** 831 − 488 | **21.** 216 − 99 | **22.** 405 − 109 |

## Four-digit Subtraction

| | | | | |
|---|---|---|---|---|
| **23.** 3,000 − 2,821 | **24.** 8,000 − 1,006 | **25.** 7,000 − 988 | **26.** 2,000 − 1,999 | **27.** 6,000 − 255 |
| **28.** 6,203 − 1,624 | **29.** 1,090 − 988 | **30.** 5,831 − 2,842 | **31.** 9,005 − 3,108 | **32.** 4,251 − 2,259 |
| **33.** $50.00 − 6.95 | **34.** $29.88 − 17.99 | **35.** $40.50 − 21.85 | **36.** $44.00 − 37.95 | |

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# Multiplication Tables (No twin facts, two-digit facts, or factors of 0 or 1 are included.)

## Table 2

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 5 | 3 | 7 | 4 | 6 | 9 | 8 |
| × 2 | × 2 | × 2 | × 2 | × 2 | × 2 | × 2 | × 2 |

## Table 3

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | 6 | 5 | 3 | 9 | 7 | 8 |
| × 3 | × 3 | × 3 | × 3 | × 3 | × 3 | × 3 |

## Table 4

| | | | | | |
|---|---|---|---|---|---|
| 4 | 6 | 5 | 8 | 7 | 9 |
| × 4 | × 4 | × 4 | × 4 | × 4 | × 4 |

## Table 5

| | | | | |
|---|---|---|---|---|
| 5 | 9 | 6 | 8 | 7 |
| × 5 | × 5 | × 5 | × 5 | × 5 |

## Table 6

| | | | |
|---|---|---|---|
| 7 | 6 | 9 | 8 |
| × 6 | × 6 | × 6 | × 6 |

## Table 7

| | | |
|---|---|---|
| 7 | 9 | 8 |
| × 7 | × 7 | × 7 |

## Table 8

| | |
|---|---|
| 9 | 8 |
| × 8 | × 8 |

## Table 9

| |
|---|
| 9 |
| × 9 |

# Multiplication Fact Challenge How fast can you say all 72 products?

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| 1. | $6 \times 3$ | $4 \times 4$ | $8 \times 2$ | $9 \times 6$ | $0 \times 7$ | $3 \times 2$ | $1 \times 5$ | $9 \times 8$ | $7 \times 6$ |
| 2. | $9 \times 3$ | $2 \times 8$ | $8 \times 6$ | $5 \times 0$ | $8 \times 8$ | $7 \times 8$ | $5 \times 9$ | $4 \times 9$ | $6 \times 1$ |
| 3. | $2 \times 2$ | $8 \times 4$ | $6 \times 9$ | $5 \times 5$ | $8 \times 9$ | $9 \times 7$ | $0 \times 6$ | $9 \times 4$ | $8 \times 3$ |
| 4. | $9 \times 2$ | $6 \times 2$ | $4 \times 7$ | $9 \times 9$ | $8 \times 7$ | $9 \times 5$ | $5 \times 7$ | $3 \times 8$ | $1 \times 1$ |
| 5. | $6 \times 5$ | $4 \times 3$ | $5 \times 2$ | $7 \times 9$ | $6 \times 7$ | $4 \times 8$ | $7 \times 3$ | $0 \times 0$ | $5 \times 3$ |
| 6. | $5 \times 4$ | $0 \times 1$ | $2 \times 3$ | $6 \times 8$ | $7 \times 5$ | $6 \times 4$ | $3 \times 7$ | $1 \times 8$ | $4 \times 5$ |
| 7. | $3 \times 9$ | $7 \times 2$ | $0 \times 9$ | $4 \times 2$ | $7 \times 7$ | $8 \times 5$ | $7 \times 4$ | $3 \times 3$ | $2 \times 4$ |
| 8. | $6 \times 6$ | $5 \times 8$ | $4 \times 6$ | $1 \times 3$ | $3 \times 6$ | $5 \times 6$ | $3 \times 4$ | $2 \times 5$ | $0 \times 7$ |

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# Multiplication with Carrying

**1.** 58 × 3

**2.** 75 × 9

**3.** 16 × 4

**4.** 37 × 8

**5.** 84 × 6

**6.** 53 × 9

**7.** 64 × 7

**8.** 437 × 8

**9.** 209 × 7

**10.** 358 × 9

**11.** 592 × 5

**12.** 746 × 8

**13.** 928 × 4

**14.** $16.87 × 9

**15.** 3,294 × 8

**16.** $78.92 × 4

**17.** 3,997 × 7

**18.** 5,295 × 8

**19.** 32 × 59

**20.** 83 × 76

**21.** 48 × 95

**22.** 77 × 48

**23.** 98 × 57

**24.** 582 × 97

**25.** 859 × 64

**26.** 790 × 68

**27.** 509 × 37

**28.** $9.98 × 49

**29.** $5.28 × 776

**30.** 974 × 632

**31.** 499 × 305

**32.** 946 × 259

**33.** 785 × 628

**34.** 93 × 6 = _____

**35.** 127 × 9 = _____

**36.** $2.53 × 5 = _____

**37.** 57 × 3 = _____

**38.** 572 × 8 = _____

**39.** 639 × 4 = _____

# Division Tables (No two-digit facts or divisors or quotients of 1 are included.)

## Table 2

$2\overline{)8}$ $2\overline{)4}$ $2\overline{)6}$ $2\overline{)12}$ $2\overline{)10}$ $2\overline{)18}$ $2\overline{)14}$ $2\overline{)16}$

## Table 3

$3\overline{)6}$ $3\overline{)12}$ $3\overline{)21}$ $3\overline{)15}$ $3\overline{)9}$ $3\overline{)18}$ $3\overline{)27}$ $3\overline{)24}$

## Table 4

$4\overline{)20}$ $4\overline{)8}$ $4\overline{)16}$ $4\overline{)12}$ $4\overline{)24}$ $4\overline{)32}$ $4\overline{)28}$ $4\overline{)36}$

## Table 5

$5\overline{)10}$ $5\overline{)25}$ $5\overline{)15}$ $5\overline{)20}$ $5\overline{)35}$ $5\overline{)30}$ $5\overline{)45}$ $5\overline{)40}$

## Table 6

$6\overline{)12}$ $6\overline{)24}$ $6\overline{)18}$ $6\overline{)30}$ $6\overline{)54}$ $6\overline{)36}$ $6\overline{)48}$ $6\overline{)42}$

## Table 7

$7\overline{)28}$ $7\overline{)14}$ $7\overline{)21}$ $7\overline{)42}$ $7\overline{)35}$ $7\overline{)49}$ $7\overline{)63}$ $7\overline{)56}$

## Table 8

$8\overline{)16}$ $8\overline{)40}$ $8\overline{)24}$ $8\overline{)32}$ $8\overline{)48}$ $8\overline{)64}$ $8\overline{)56}$ $8\overline{)72}$

## Table 9

$9\overline{)27}$ $9\overline{)18}$ $9\overline{)36}$ $9\overline{)54}$ $9\overline{)45}$ $9\overline{)81}$ $9\overline{)63}$ $9\overline{)72}$

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## Division Fact Challenge How fast can you say all 56 quotients?

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1. | $8\overline{)64}$ | $4\overline{)28}$ | $5\overline{)15}$ | $9\overline{)18}$ | $5\overline{)45}$ | $2\overline{)18}$ | $5\overline{)20}$ |
| 2. | $7\overline{)63}$ | $8\overline{)32}$ | $2\overline{)14}$ | $6\overline{)24}$ | $7\overline{)42}$ | $9\overline{)27}$ | $8\overline{)40}$ |
| 3. | $6\overline{)48}$ | $3\overline{)21}$ | $4\overline{)16}$ | $6\overline{)18}$ | $8\overline{)56}$ | $7\overline{)28}$ | $2\overline{)6}$ |
| 4. | $3\overline{)18}$ | $9\overline{)81}$ | $9\overline{)45}$ | $8\overline{)24}$ | $5\overline{)25}$ | $5\overline{)35}$ | $3\overline{)24}$ |
| 5. | $7\overline{)14}$ | $2\overline{)16}$ | $6\overline{)30}$ | $4\overline{)8}$ | $7\overline{)49}$ | $5\overline{)30}$ | $7\overline{)35}$ |
| 6. | $2\overline{)8}$ | $8\overline{)48}$ | $7\overline{)21}$ | $5\overline{)10}$ | $6\overline{)42}$ | $6\overline{)12}$ | $8\overline{)72}$ |
| 7. | $4\overline{)12}$ | $6\overline{)36}$ | $7\overline{)56}$ | $8\overline{)16}$ | $9\overline{)36}$ | $3\overline{)12}$ | $4\overline{)32}$ |
| 8. | $9\overline{)63}$ | $6\overline{)54}$ | $4\overline{)20}$ | $3\overline{)6}$ | $9\overline{)72}$ | $5\overline{)40}$ | $9\overline{)54}$ |

# Division with a One-digit Divisor

**1.** $3\overline{)75}$ **2.** $8\overline{)96}$ **3.** $4\overline{)76}$ **4.** $9\overline{)99}$ **5.** $5\overline{)95}$

**6.** $8\overline{)2,592}$ **7.** $9\overline{)504}$ **8.** $7\overline{)4,368}$ **9.** $4\overline{)3,316}$

**Watch for remainders.**

**10.** $6\overline{)5,564}$ **11.** $9\overline{)4,537}$ **12.** $8\overline{)2,123}$ **13.** $5\overline{)7,814}$

**Write the remainders as fractions.**

**14.** $7\overline{)4,147}$ **15.** $8\overline{)4,335}$ **16.** $4\overline{)3,999}$ **17.** $6\overline{)3,127}$

**Write the remainders as fractions in lowest terms.**

**18.** $9\overline{)5,709}$ **19.** $6\overline{)5,241}$ **20.** $8\overline{)7,550}$ **21.** $4\overline{)3,834}$

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## Division with a Two-digit Divisor

**1.** $20\overline{)180}$ **2.** $50\overline{)400}$ **3.** $90\overline{)360}$ **4.** $60\overline{)240}$

**5.** $41\overline{)287}$ **6.** $72\overline{)432}$ **7.** $13\overline{)91}$ **8.** $62\overline{)558}$

**9.** $59\overline{)472}$ **10.** $78\overline{)312}$ **11.** $37\overline{)296}$ **12.** $26\overline{)182}$

**13.** $32\overline{)1,792}$ **14.** $49\overline{)\$25.97}$ **15.** $75\overline{)6,600}$ **16.** $87\overline{)4,524}$

**Watch for remainders. Check each quotient.**

**17.** $39\overline{)6,224}$ **18.** $83\overline{)9,642}$ **19.** $57\overline{)8,432}$

**Write the remainders as fractions in lowest terms. Check each quotient.**

**20.** $12\overline{)6,834}$ **21.** $36\overline{)8,685}$ **22.** $18\overline{)12,321}$

# Writing Large Numbers

**Write these numbers.**

1. 23 million, 7 thousand, 26 _____
2. 5 million, 231 thousand, 8 _____
3. 216 million, 87 thousand _____
4. 3 million, 4 thousand, 2 _____
5. 6 billion, 3 million, 8 _____
6. 21 billion, 18 million, 25 _____
7. 87 billion, 932 _____

**Write the value of the circled digit.**

**8.** 2,(4)06 _____ **9.** (7)3,629 _____ **10.** (4)56,825 _____ **11.** 79,50(6) _____

**12.** 7,(8)92 _____ **13.** 98,4(5)1 _____ **14.** 5(6)0,021 _____ **15.** (2)46,321 _____

**Write in order from least to greatest.**

**16.**

| 100,201 | 100,021 | 100,102 | 101,002 | 100,210 |
|---|---|---|---|---|
| least | between | between | between | greatest |

**Circle the numbers whose commas are in the wrong places.**

**17.** 329,541 **18.** 1,6295,408 **19.** 32,64,87,41 **20.** 627,24

**Circle the digit in the ten millions' place.**

**21.** 472,625,407 **22.** 37,576,281.03 **23.** 107,518,299

**Write one thousand more than the number.**

**24.** 7,842 _____ **25.** 29,387 _____ **26.** 516,239 _____ **27.** 781 _____

**Write ten thousand less than the number.**

**28.** 36,429 _____ **29.** 100,000 _____ **30.** 207,431 _____ **31.** 103,251 _____

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# Converting Measures

**1.** 5 feet
_____ inches

**2.** 2 yards
_____ inches

**3.** 16 cups
_____ pints

**4.** 23 gallons
_____ quarts

**5.** 5 pounds
_____ ounces

**6.** 56 days
_____ weeks

**7.** 3 meters
_____ centimeters

**8.** 32 quarts
_____ pecks

**9.** 21 ft. = ____ yd.

**10.** 12 yd. = ____ ft.

**11.** 80 oz. = ____ lb.

**12.** 27 ft. + 6 yd. = ____ yd.

**13.** 3 lb. − 7 oz. = ____ oz.

**14.** 230 decimeters = ____ meters

**15.** 24 months + 3 years = ____ years

# Averaging

**1. Grades**

93
82
77
85
90
89

**2. Lengths**

13 in.
15 in.
7 in.
10 in.
8 in.
11 in.
13 in.

**3. Temperatures**

55°
47°
53°
59°
46°

**4. Prices**

$8.50
9.75
6.36
8.55

**5. Miles**

4,726
9,052
6,780
9,132
7,855

**6. Weights**

103 lb.
172 lb.
98 lb.
124 lb.
157 lb.
161 lb.
112 lb.
129 lb.

**7. Ages**

10
9
8
9
10
9
7
10
9

**8. Books**

73,206
58,729
46,832
75,900
69,457
38,924

**9. Gallons**

953
706
839
654
783

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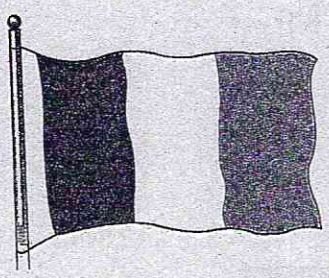
# Fraction Fun

**Mark under the fractions. Circle each denominator.**

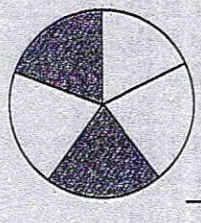
1. $\frac{5}{7}$ ○
2. 12 ○
3. $\frac{2}{9}$ ○
4. $\frac{1}{5}$ ○
5. 231 ○
6. 17 ○
7. $\frac{3}{8}$ ○
8. $\frac{5}{11}$ ○

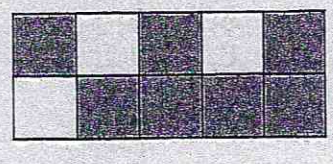
**Answer the questions about France's flag.**

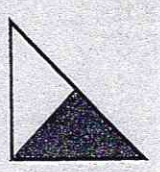


9. How many parts? _____
10. Are all the parts equal? _____
11. How many parts are red? _____
12. What fraction of the flag is red? _____

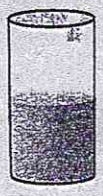
**What fractional part is colored?**

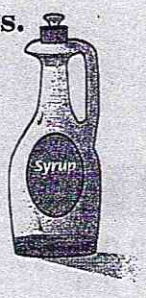
13.  _____

14.  _____

15.  _____

**Estimate how full each container is.**

16.  $\frac{1}{2}$ ○ $\frac{1}{3}$ ○

17.  $\frac{7}{10}$ ○ $\frac{1}{10}$ ○

18. $\frac{5}{5}$ ○ $\frac{3}{5}$ ○

**Read and write each fraction.**

19. three fourths _____
20. nine tenths _____
21. four sevenths _____
22. one fifth _____

**Find the fractional part of each whole number by dividing the whole number by the denominator of the unit fraction.**

23. $\frac{1}{5}$ of 35 = _____
24. $\frac{1}{9}$ of 81 = _____
25. $\frac{1}{2}$ of 16 = _____
26. $\frac{1}{7}$ of 14 = _____
27. $\frac{1}{8}$ of 56 = _____
28. $\frac{1}{5}$ of 15 = _____
29. $\frac{1}{7}$ of 63 = _____
30. $\frac{1}{9}$ of 27 = _____

# Reducing Fractions

**Reduce by dividing the numerator and denominator by 2.**

1. $\frac{2}{4} =$ ____
2. $\frac{4}{6} =$ ____
3. $\frac{6}{8} =$ ____
4. $\frac{2}{10} =$ ____
5. $\frac{12}{14} =$ ____

**Reduce by dividing the numerator and denominator by 3.**

6. $\frac{21}{24} =$ ____
7. $\frac{15}{18} =$ ____
8. $\frac{51}{63} =$ ____
9. $\frac{3}{6} =$ ____
10. $\frac{9}{12} =$ ____

**Reduce by dividing the numerator and denominator by 4.**

11. $\frac{36}{40} =$ ____
12. $\frac{4}{8} =$ ____
13. $\frac{20}{24} =$ ____
14. $\frac{12}{20} =$ ____
15. $\frac{84}{100} =$ ____

**Reduce by dividing the numerator and denominator by 5.**

16. $\frac{5}{10} =$ ____
17. $\frac{45}{50} =$ ____
18. $\frac{30}{55} =$ ____
19. $\frac{10}{45} =$ ____
20. $\frac{75}{85} =$ ____

**Reduce by dividing the numerator and denominator by 6.**

21. $\frac{42}{54} =$ ____
22. $\frac{6}{12} =$ ____
23. $\frac{18}{30} =$ ____
24. $\frac{24}{30} =$ ____
25. $\frac{120}{126} =$ ____

**Reduce these fractions to lowest terms after determining the greatest common factor.**

26. $\frac{5}{15} =$ ____
27. $\frac{3}{9} =$ ____
28. $\frac{2}{18} =$ ____
29. $\frac{6}{24} =$ ____
30. $\frac{5}{100} =$ ____

31. $\frac{3}{18} =$ ____
32. $\frac{6}{24} =$ ____
33. $\frac{2}{20} =$ ____
34. $\frac{10}{30} =$ ____
35. $\frac{45}{55} =$ ____

36. $\frac{120}{138} =$ ____
37. $\frac{30}{50} =$ ____
38. $\frac{10}{15} =$ ____
39. $\frac{8}{12} =$ ____
40. $\frac{15}{20} =$ ____

41. $\frac{18}{27} =$ ____
42. $\frac{117}{153} =$ ____
43. $\frac{9}{12} =$ ____
44. $\frac{15}{21} =$ ____
45. $\frac{12}{16} =$ ____

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## Proper and Improper Fractions

**Mark under the improper fractions. Circle the denominator of each fraction.**

1. $\frac{3}{8}$ ○ 2. $\frac{8}{3}$ ○ 3. $\frac{9}{9}$ ○ 4. $\frac{4}{3}$ ○ 5. $\frac{6}{7}$ ○ 6. $\frac{11}{15}$ ○ 7. $\frac{10}{7}$ ○ 8. $\frac{5}{5}$ ○

**Change the improper fractions to whole numbers.**

9. $\frac{15}{5} =$ ___ 10. $\frac{81}{9} =$ ___ 11. $\frac{17}{17} =$ ___ 12. $\frac{50}{2} =$ ___ 13. $\frac{12}{4} =$ ___ 14. $\frac{56}{7} =$ ___

**Change the improper fractions to mixed numbers.**

15. $\frac{13}{4} =$ ___ 16. $\frac{75}{8} =$ ___ 17. $\frac{82}{9} =$ ___ 18. $\frac{52}{7} =$ ___ 19. $\frac{43}{6} =$ ___ 20. $\frac{19}{4} =$ ___

**Change the improper fractions to mixed numbers. Reduce the fractions to lowest terms.**

21. $\frac{48}{9} =$ ___ 22. $\frac{22}{4} =$ ___ 23. $\frac{15}{10} =$ ___ 24. $\frac{50}{8} =$ ___ 25. $\frac{32}{6} =$ ___

## Equivalent Fractions

**Make equivalent fractions by multiplying each term by 2.**

1. $\frac{3}{4} =$ ___ 2. $\frac{7}{8} =$ ___ 3. $\frac{10}{11} =$ ___ 4. $\frac{5}{7} =$ ___ 5. $\frac{1}{3} =$ ___ 6. $\frac{3}{11} =$ ___

**Make equivalent fractions by multiplying each term by 6.**

7. $\frac{2}{3} =$ ___ 8. $\frac{5}{6} =$ ___ 9. $\frac{1}{8} =$ ___ 10. $\frac{4}{5} =$ ___ 11. $\frac{5}{7} =$ ___ 12. $\frac{2}{9} =$ ___

**Write the missing terms to make equivalent fractions.**

13. $\frac{1}{2} = \frac{\quad}{4}$ 14. $\frac{2}{5} = \frac{\quad}{15}$ 15. $\frac{2}{3} = \frac{\quad}{12}$ 16. $\frac{5}{6} = \frac{\quad}{24}$ 17. $\frac{2}{3} = \frac{\quad}{6}$ 18. $\frac{7}{9} = \frac{\quad}{63}$

19. $\frac{3}{5} = \frac{\quad}{35}$ 20. $\frac{2}{7} = \frac{\quad}{49}$ 21. $\frac{1}{8} = \frac{\quad}{48}$ 22. $\frac{7}{10} = \frac{\quad}{70}$ 23. $\frac{5}{11} = \frac{\quad}{121}$ 24. $\frac{3}{8} = \frac{\quad}{56}$

25. $\frac{4}{9} = \frac{\quad}{36}$ 26. $\frac{7}{8} = \frac{\quad}{24}$ 27. $\frac{3}{4} = \frac{\quad}{48}$ 28. $\frac{3}{10} = \frac{\quad}{50}$ 29. $\frac{5}{6} = \frac{\quad}{42}$ 30. $\frac{9}{13} = \frac{\quad}{26}$

# Adding Fractions

**1.** 2 ninths<br>3 ninths<br>+ 3 ninths

**2.** 3 tenths<br>5 tenths<br>+ 1 tenth

**3.** 7 fifteenths<br>2 fifteenths<br>+ 2 fifteenths

**4.** 2 elevenths<br>3 elevenths<br>+ 4 elevenths

**5.** $\frac{5}{17} + \frac{7}{17} + \frac{3}{17} =$ ____

**6.** $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{2}{8} =$ ____

**7.** $\frac{9}{15} + \frac{2}{15} =$ ____

**8.** $\frac{5}{18}$<br>$\frac{1}{18}$<br>$+\frac{1}{18}$

**9.** $\frac{7}{19}$<br>$\frac{3}{19}$<br>$+\frac{4}{19}$

**10.** $7\frac{2}{11}$<br>$6\frac{3}{11}$<br>$+ 12\frac{4}{11}$

**11.** $121\frac{1}{5}$<br>$76\frac{2}{5}$<br>$+ 251\frac{1}{5}$

**12.** $73\frac{7}{16}$<br>$29\frac{3}{16}$<br>$+ 6\frac{1}{16}$

**Change the improper fractions and reduce if necessary.**

**13.** $\frac{3}{4}$<br>$\frac{1}{4}$<br>$+\frac{3}{4}$

**14.** $\frac{1}{5}$<br>$\frac{3}{5}$<br>$+\frac{2}{5}$

**15.** $7\frac{3}{8}$<br>$6\frac{3}{8}$<br>$+ 3\frac{5}{8}$

**16.** $3\frac{2}{9}$<br>$8\frac{2}{9}$<br>$+ 4\frac{2}{9}$

**17.** $24\frac{5}{6}$<br>$93\frac{5}{6}$<br>$+ 72$

**Find common denominators before adding.**

**18.** $\frac{3}{4}$<br>$+\frac{1}{2}$

**19.** $4\frac{2}{5}$<br>$+ 7\frac{1}{3}$

**20.** $16\frac{1}{6}$<br>$+ 72\frac{1}{2}$

**21.** $42\frac{3}{4}$<br>$+ 93\frac{2}{3}$

**22.** $7\frac{1}{4}$<br>$11\frac{3}{8}$<br>$+ 9\frac{1}{2}$

**23.** $23\frac{1}{4}$<br>$9\frac{5}{6}$<br>$+ 92\frac{2}{3}$

**24.** $5\frac{5}{6}$<br>$9\frac{1}{2}$<br>$+ 2\frac{4}{9}$

**25.** $34\frac{1}{5}$<br>$17\frac{2}{3}$<br>$+ 23\frac{3}{5}$

**26.** $3\frac{1}{2} + 7\frac{1}{5} =$ ____

**27.** $12\frac{3}{8} + 6\frac{1}{4} =$ ____

**28.** $8\frac{1}{3} + 6\frac{1}{2} =$ ____

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# Subtracting Fractions

**1.** 7 ninths
− 2 ninths

**2.** 10 elevenths
− 7 elevenths

**3.** 4 fifths
− 3 fifths

**4.** 9 tenths
− 2 tenths

**5.** $\frac{13}{19} - \frac{7}{19} =$ ____

**6.** $\frac{8}{11} - \frac{4}{11} =$ ____

**7.** $\frac{13}{21} - \frac{5}{21} =$ ____

**8.** $\frac{9}{13} - \frac{7}{13} =$ ____

**9.** $\frac{7}{9}$
$-\frac{5}{9}$

**10.** $\frac{24}{25}$
$-\frac{6}{25}$

**11.** $13\frac{30}{37}$
$-9\frac{16}{37}$

**12.** $24\frac{9}{14}$
$-17\frac{8}{14}$

**13.** $100\frac{13}{17}$
$-53\frac{5}{17}$

**Reduce if necessary.**

**14.** $\frac{9}{10}$
$-\frac{1}{10}$

**15.** $\frac{7}{12}$
$-\frac{5}{12}$

**16.** $11\frac{14}{15}$
$-9\frac{4}{15}$

**17.** $201\frac{7}{8}$
$-93\frac{3}{8}$

**18.** $152\frac{5}{6}$
$-68\frac{1}{6}$

**Find common denominators before subtracting.**

**19.** $23\frac{4}{5}$
$-16\frac{4}{15}$

**20.** $83\frac{1}{4}$
$-19\frac{1}{8}$

**21.** $2\frac{4}{7}$
$-1\frac{1}{14}$

**22.** $21\frac{3}{10}$
$-6\frac{1}{20}$

**23.** $16\frac{7}{10}$
$-9\frac{1}{5}$

**24.** $51\frac{2}{3}$
$-27\frac{1}{4}$

**25.** $41\frac{5}{6}$
$-32\frac{3}{4}$

**26.** $63\frac{1}{2}$
$-38\frac{2}{9}$

**27.** $381\frac{2}{3}$
$-264\frac{3}{5}$

**28.** $400\frac{2}{3}$
$-129\frac{1}{2}$

**29.** $24\frac{7}{9}$
$-7\frac{1}{4}$

**30.** $12\frac{7}{10}$
$-3\frac{3}{5}$

**31.** $8\frac{3}{4} - 6\frac{1}{2} =$ ____

**32.** $15\frac{1}{3} - 9\frac{1}{5} =$ ____

**33.** $7\frac{4}{9} - 6\frac{1}{3} =$ ____

## Subtracting Fractions with Borrowing

**1.** $1 - \frac{1}{2}$

**2.** $1 - \frac{3}{4}$

**3.** $1 - \frac{7}{8}$

**4.** $1 - \frac{1}{9}$

**5.** $2 - \frac{2}{3}$

**6.** $5 - \frac{5}{9}$

**7.** $4 - \frac{1}{2}$

**8.** $6 - \frac{3}{8}$

**9.** $3 - 1\frac{1}{4}$

**10.** $8 - 3\frac{2}{5}$

**11.** $16 - 6\frac{7}{8}$

**12.** $9 - 5\frac{3}{7}$

**13.** $6\frac{1}{4} - 2\frac{3}{4}$

**14.** $5\frac{3}{5} - 2\frac{4}{5}$

**15.** $7\frac{1}{5} - 6\frac{2}{5}$

**16.** $24\frac{3}{8} - 9\frac{5}{8}$

**Find common denominators before subtracting.**

**17.** $2\frac{1}{3} - 1\frac{3}{5}$

**18.** $9\frac{1}{2} - 6\frac{3}{4}$

**19.** $17\frac{4}{9} - 13\frac{5}{6}$

**20.** $31\frac{2}{3} - 17\frac{3}{4}$

**21.** $100\frac{1}{4} - 76\frac{1}{2}$

**22.** $27\frac{3}{5} - 9\frac{9}{10}$

**23.** $213\frac{1}{3} - 84\frac{3}{5}$

**24.** $10\frac{3}{8} - 3\frac{5}{6}$

**25.** $15\frac{3}{7} - 4\frac{11}{14}$

**26.** $7\frac{4}{9} - 6\frac{2}{3} =$ ____

**27.** $13\frac{3}{8} - 6\frac{3}{4} =$ ____

**28.** $6\frac{1}{2} - 3\frac{3}{5} =$ ____

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# Multiplying Fractions

1. $\frac{1}{5} \times \frac{1}{4} =$ ___ 2. $\frac{2}{3} \times \frac{4}{5} =$ ___ 3. $\frac{3}{5} \times \frac{6}{7} =$ ___ 4. $\frac{1}{7} \times \frac{3}{4} =$ ___

**Reduce products to lowest terms.**

5. $\frac{2}{5} \times \frac{1}{4} =$ ___ 6. $\frac{3}{5} \times \frac{5}{6} =$ ___ 7. $\frac{1}{4} \times \frac{6}{7} =$ ___ 8. $\frac{3}{4} \times \frac{5}{6} =$ ___

**Use cancellation if possible.**

9. $\frac{3}{8} \times \frac{4}{5} =$ ___ 10. $\frac{3}{7} \times \frac{14}{15} =$ ___ 11. $\frac{2}{3} \times \frac{6}{7} =$ ___ 12. $\frac{5}{6} \times \frac{4}{5} =$ ___

13. $\frac{9}{10} \times \frac{5}{6} =$ ___ 14. $\frac{2}{5} \times \frac{6}{7} =$ ___ 15. $\frac{2}{7} \times \frac{7}{18} =$ ___ 16. $\frac{4}{9} \times \frac{3}{8} =$ ___

17. $9 \times \frac{3}{4} =$ ___ 18. $\frac{5}{8} \times 16 =$ ___ 19. $\frac{2}{3} \times 12 =$ ___ 20. $15 \times \frac{1}{5} =$ ___

21. $4\frac{7}{9} \times 54 =$ ___ 22. $18 \times \frac{5}{6} =$ ___ 23. $6\frac{1}{2} \times 10 =$ ___ 24. $9 \times 5\frac{3}{4} =$ ___

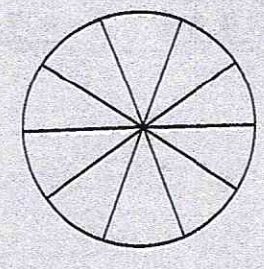
25. $2\frac{3}{4} \times 1\frac{1}{2} =$ ___ 26. $3\frac{2}{5} \times 10 =$ ___ 27. $1\frac{1}{4} \times 1\frac{1}{6} =$ ___ 28. $\frac{4}{9} \times 81 =$ ___

29. $\frac{2}{9} \times 3 =$ ___ 30. $6\frac{2}{3} \times 30 =$ ___ 31. $5\frac{2}{9} \times 3 =$ ___ 32. $1\frac{2}{3} \times 30 =$ ___

33. $\frac{9}{17} \times \frac{3}{4} =$ ___ 34. $\frac{6}{7} \times \frac{2}{5} =$ ___ 35. $\frac{8}{9} \times \frac{3}{4} =$ ___ 36. $\frac{1}{2} \times \frac{1}{4} =$ ___

# Decimal Fun

1. **Shade seven-tenths of the circle.**



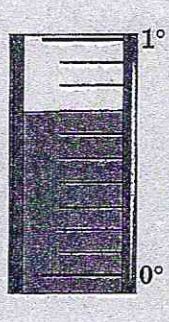
2. **What fraction names the shaded part of the circle in exercise 1?**

_____

3. **What decimal names the shaded part?** _____

**Write each as a fraction and a decimal.**

| | fraction | decimal |
|---|---|---|
| 4. four tenths | _____ | _____ |
| 5. nine tenths | _____ | _____ |
| 6. six tenths | _____ | _____ |




$\frac{7°}{10}$ or .70°

**Circle the digit in the tenths' place in these mixed decimals. Read each number.**

**7.** 7.3 **8.** 15.9 **9.** 3.1 **10.** 6.23 **11.** 12.51

**Give the fraction of a dollar for each.**

**12.** 5 dimes = _____

**13.** 3 dimes = _____

**14.** 7 dimes = _____

**15.** 1 dime = _____

**Write each fraction in exercises 12–15 as decimals.**

**16.** $\frac{5}{10}$ = _____

**17.** $\frac{3}{10}$ = _____

**18.** $\frac{7}{10}$ = _____

**19.** $\frac{1}{10}$ = _____

**Read the mixed decimals and circle the digit in the hundredths' place.**

**20.** 7.31 **21.** 6.03 **22.** 8.445 **23.** 9.624 **24.** .113

**Make both decimals hundredths and write >, <, or =.**

**25.** .2 ____ .17 **26.** .5 ____ .51 **27.** .4 ____ .39 **28.** .1 ____ .03

**Write the equivalent decimal for each fraction.**

**29.** $\frac{9}{10}$ = ____ **30.** $\frac{91}{100}$ = ____ **31.** $\frac{9}{100}$ = ____ **32.** $\frac{9}{1{,}000}$ = ____

**33.** $\frac{31}{1{,}000}$ = ____ **34.** $\frac{3}{1{,}000}$ = ____ **35.** $\frac{17}{100}$ = ____ **36.** $\frac{251}{1{,}000}$ = ____

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## Adding Decimals

**1.**
$$\begin{array}{r} 4.7 \\ 2.5 \\ +\ 6.3 \\ \hline \end{array}$$

**2.**
$$\begin{array}{r} 9.38 \\ 14.06 \\ +\ 7.82 \\ \hline \end{array}$$

**3.**
$$\begin{array}{r} 3.91 \\ 5.23 \\ +\ 8.56 \\ \hline \end{array}$$

**4.**
$$\begin{array}{r} 23.16 \\ 78.32 \\ +\ 89.86 \\ \hline \end{array}$$

**5.**
$$\begin{array}{r} 1.5 \\ 5.1 \\ +\ 7.0 \\ \hline \end{array}$$

**6.** $4.2 + 6.5 =$ _____ **7.** $42.63 + 87.29 =$ _____ **8.** $13.5 + 6.9 =$ _____

**9.** $135.7 + 423.9 =$ _____ **10.** $5.5 + 5.5 =$ _____ **11.** $4.32 + 4.3 =$ _____

**12.**
$$\begin{array}{r} 53.26 \\ 78.39 \\ 54.06 \\ +\ 87.59 \\ \hline \end{array}$$

**13.**
$$\begin{array}{r} 106.7 \\ 58.9 \\ 327.8 \\ +\ 406.8 \\ \hline \end{array}$$

**14.**
$$\begin{array}{r} 237.51 \\ 56.8 \\ 942.53 \\ +\ 78.96 \\ \hline \end{array}$$

**15.**
$$\begin{array}{r} 831.16 \\ 92.87 \\ 653.9 \\ +\ 81.73 \\ \hline \end{array}$$

**16.**
$$\begin{array}{r} 1.327 \\ 4.618 \\ 7.304 \\ +\ 8.429 \\ \hline \end{array}$$

## Subtracting Decimals

**1.**
$$\begin{array}{r} 5.2 \\ -\ 3.5 \\ \hline \end{array}$$

**2.**
$$\begin{array}{r} 16.21 \\ -\ 8.32 \\ \hline \end{array}$$

**3.**
$$\begin{array}{r} 4.83 \\ -\ 1.94 \\ \hline \end{array}$$

**4.**
$$\begin{array}{r} 25.301 \\ -\ 7.832 \\ \hline \end{array}$$

**5.**
$$\begin{array}{r} 73.16 \\ -\ 9.18 \\ \hline \end{array}$$

**6.** $12.5 - 6.8 =$ _____ **7.** $9.31 - 2.60 =$ _____ **8.** $12.10 - 8.42 =$ _____

**9.** $5.6 - 4.2 =$ _____ **10.** $13.3 - 7.9 =$ _____ **11.** $4.321 - 1.488 =$ _____

**12.**
$$\begin{array}{r} 7.324 \\ -\ 1.806 \\ \hline \end{array}$$

**13.**
$$\begin{array}{r} 573.1 \\ -\ 253.4 \\ \hline \end{array}$$

**14.**
$$\begin{array}{r} 6.000 \\ -\ 1.593 \\ \hline \end{array}$$

**15.**
$$\begin{array}{r} 23.16 \\ -\ 17.83 \\ \hline \end{array}$$

**16.**
$$\begin{array}{r} 19.421 \\ -\ 7.863 \\ \hline \end{array}$$

**17.**
$$\begin{array}{r} 135.2 \\ -\ 78.5 \\ \hline \end{array}$$

**18.**
$$\begin{array}{r} 6.41 \\ -\ 2.89 \\ \hline \end{array}$$

**19.**
$$\begin{array}{r} 43.129 \\ -\ 36.009 \\ \hline \end{array}$$

**20.**
$$\begin{array}{r} 17.18 \\ -\ 6.23 \\ \hline \end{array}$$

**21.**
$$\begin{array}{r} 5.007 \\ -\ 0.253 \\ \hline \end{array}$$

**22.**
$$\begin{array}{r} 7.621 \\ -\ 3.825 \\ \hline \end{array}$$

**23.**
$$\begin{array}{r} 7.51 \\ -\ 6.237 \\ \hline \end{array}$$

**24.**
$$\begin{array}{r} 5.2 \\ -\ 3.412 \\ \hline \end{array}$$

**25.**
$$\begin{array}{r} 19.1 \\ -\ 12.72 \\ \hline \end{array}$$

**26.**
$$\begin{array}{r} 3.12 \\ -\ 1.275 \\ \hline \end{array}$$

# Perimeter Fun

**Measure to find the perimeters.**

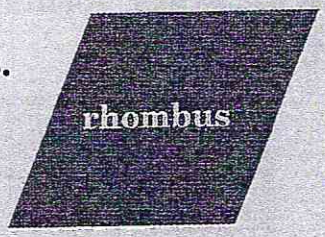
**1.**

_____ cm

**2.**

_____ cm

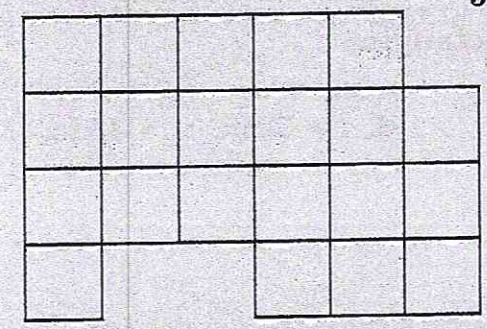
**3.**




_____ cm

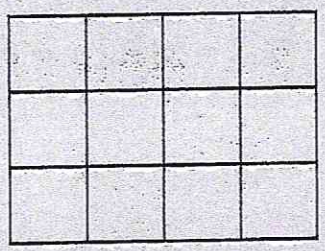
**Count around the shapes to find the perimeters.**

**4.**



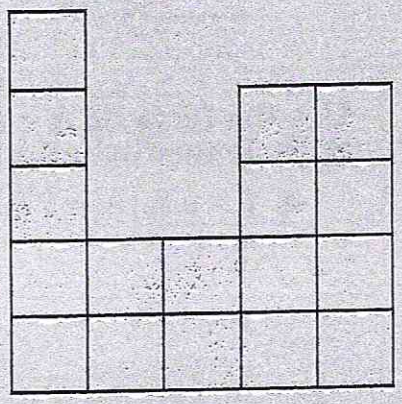
_____ cm

**5.**



_____ cm

**6.**



_____ cm

**Use the formula $P = (2 \times l) + (2 \times w)$ to find the perimeters of rectangles with these dimensions.**

**7.** $l = 4$ ft.; $w = 3$ ft.

**8.** $l = 18$ cm; $w = 15$ cm

**9.** $l = 4\frac{1}{2}$ ft.; $w = 3$ ft.

**Use the formula $P = 4 \times s$ to find the perimeters of squares with these dimensions.**

**10.** $s = 9$ ft.

**11.** $s = 21$ ft.

**12.** $s = 2\frac{1}{2}$ ft.

**13.** $s = 301$ cm

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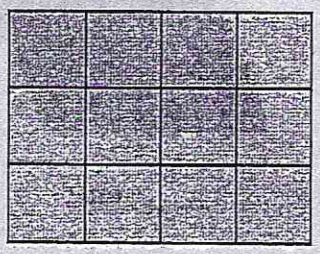
# Area Fun

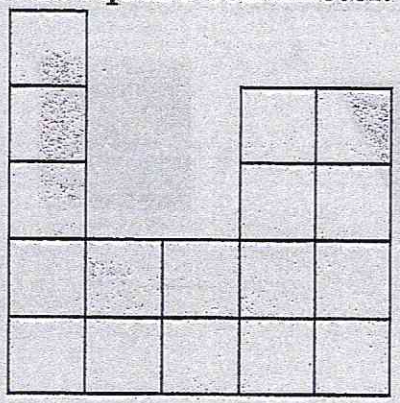
**Find the areas. Each ▣ equals one square centimeter.**

1.



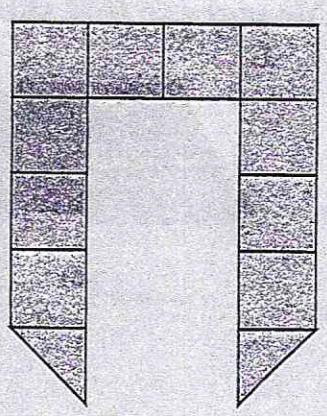
_____ sq. cm

2.



_____ sq. cm

3.



_____ sq. cm

**Use the formula $A = l \times w$ to find the areas of rectangles with these dimensions.**

4. $l = 9$ ft.; $w = 7$ ft.

5. $l = 24$ ft.; $w = 9$ ft.

6. $l = 52$ in.; $w = 48$ in.

7. $l = 17$ yd.; $w = 16$ yd.

8. $l = 104$ in.; $w = 57$ in.

9. $l = 6\frac{1}{2}$ ft.; $w = 4$ ft.

10. $l = \frac{3}{4}$ in.; $w = \frac{1}{2}$ in.

11. $l = 10$ ft.; $w = 7\frac{1}{2}$ ft.

12. $l = 4\frac{1}{2}$ ft.; $w = 1\frac{1}{2}$ ft.

**Use the formula $A = s \times s$ to find the areas of squares with these dimensions.**

13. $s = 5$ in.

14. $s = 29$ ft.

15. $s = 1\frac{1}{4}$ yd.

# Story Problem Fun

1. Mark paid $7.83 for a book entitled *John Cabot—The Discoverer of North America.* Was the cost of the book closer to $7 or $8?
_____

2. A beekeeper collected nine gallons of honey. How many quarts did he collect? _____ quarts

3. Suppose twelve Pilgrim and Indian children gathered pumpkins one afternoon. Each child gathered thirty-five pumpkins. How many did they gather? _____ pumpkins

4. If a large pumpkin makes four pies, how many pumpkins are needed to make thirty-six pies?
_____ pumpkins

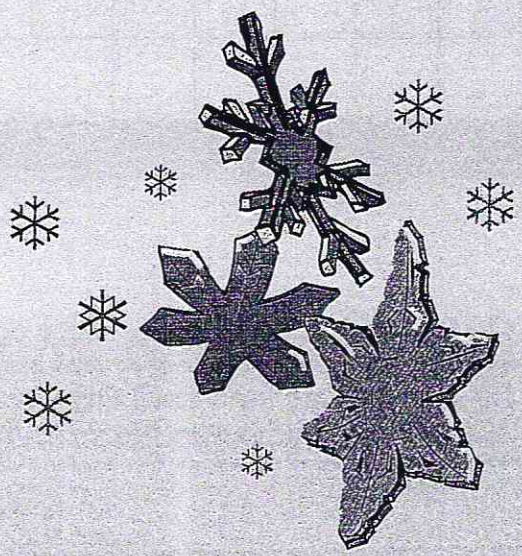
5. The Harris family picked these bushels of apples from Monday through Thursday last week:
57 bu., 65 bu., 38 bu., and 52 bu.
Find the average number of bushels picked each day.
_____ bu.

6. David Livingstone, a Scottish missionary and explorer, spent many years in the area that is now Zambia. Today the population of Zambia is about nine million, ninety-three thousand. Write that number, using digits. _____

7. In 1451 Columbus was born in Genoa, Italy. In 1492 he discovered the New World. In 1500 he returned from his third voyage to the New World. How old was Columbus in 1500? _____

8. The South Pole gets only about five inches of snow each year. How many years would it take the South Pole to get sixty inches of snow?
_____ years

9. How many inches of snow would the South Pole get in a century?
_____ inches How many feet would it get? Write the remainder as a fraction. _____ feet



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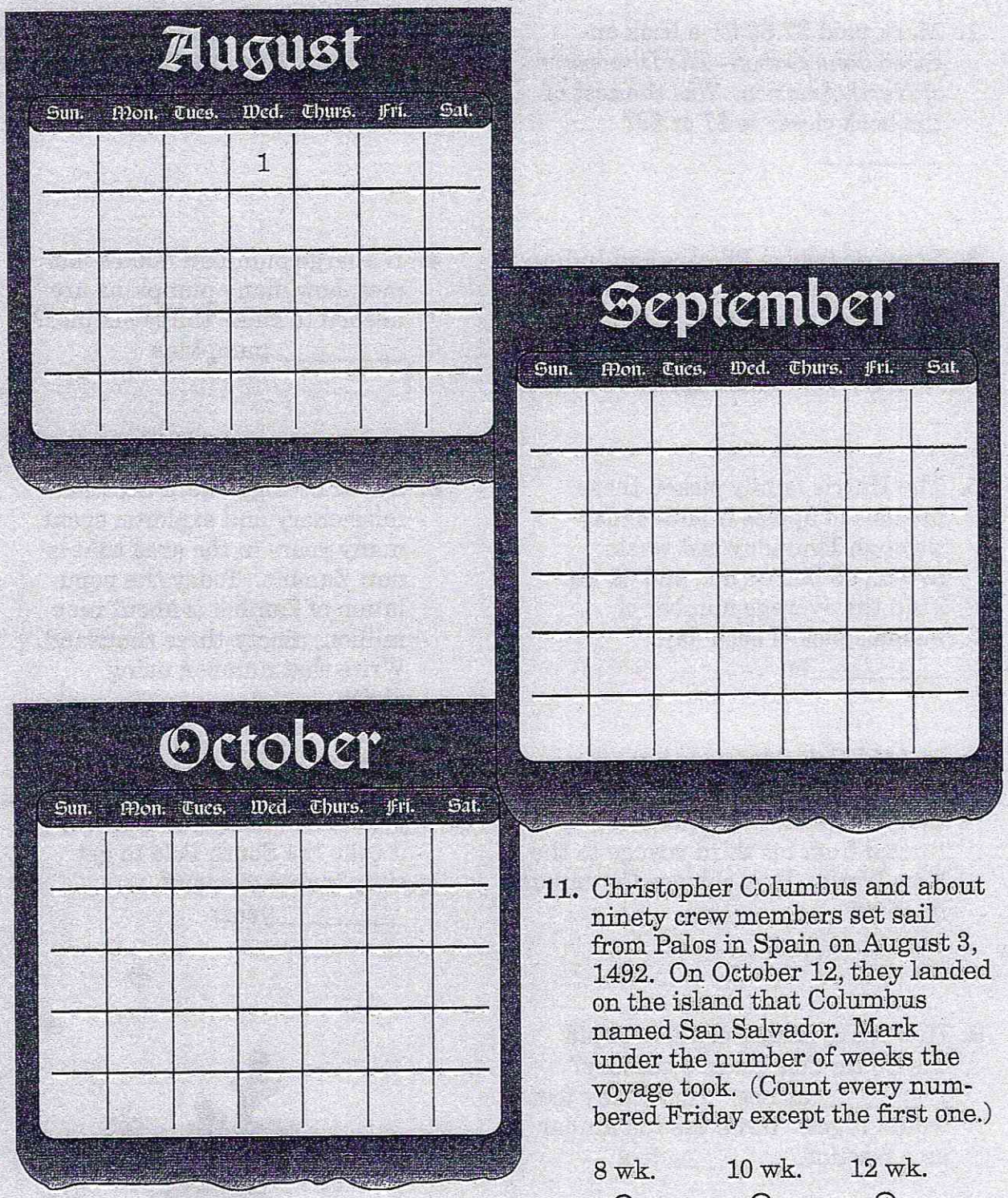
**10. Complete these calendar pages for the year 1492.**




**11.** Christopher Columbus and about ninety crew members set sail from Palos in Spain on August 3, 1492. On October 12, they landed on the island that Columbus named San Salvador. Mark under the number of weeks the voyage took. (Count every numbered Friday except the first one.)

8 wk. ○ 10 wk. ○ 12 wk. ○

**12.** On September 6, the three ships of Columbus left the Canary Islands and sailed into the vast unknown waters. Columbus and his men saw no land until October 12. How many days were the *Niña, Pinta,* and *Santa Maria* on the open sea? _____ days

## Story Problem Fun

**13.** The state flower of New York is the rose. How many roses are nine dozen roses? _____ roses

**14.** If a dozen roses cost $27.86, how much do eight dozen cost?

_____

**15.** Tim gathered 42 roses. He gave an equal number of roses to his 7 sisters. How many roses did each sister get? _____ roses

**16.** Lloyd must pay $2.16 to mail a card to Israel. He put three 55¢ stamps on the card. How much more postage does it need?

_____

**17.** Dustin left for church at 9:37. He arrived 15 minutes later. What time did he arrive at church?

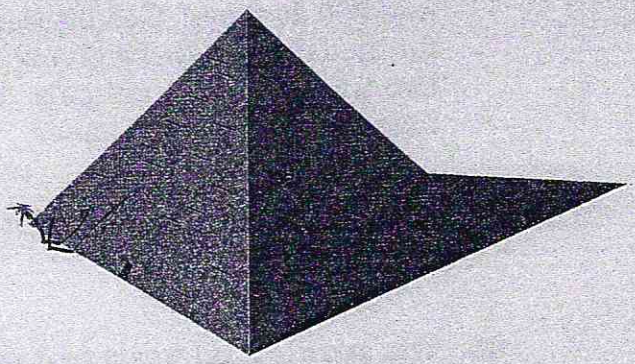
_____

**18.** Joseph's brothers came to Egypt to buy corn during the seven years of famine. Suppose they purchased 58 bushels. How many pecks did they buy?

_____ pecks

**19.** Moses lived in Egypt when some of the pyramids were built. A pyramid has a square base and four triangular sides. Find the perimeter of the square base if one side was 288 feet.

$P =$ _____ feet



**20.** Shetal is an Indian girl who sells fruit in New Delhi. One day she sold 132 apples and 152 oranges. The fraction $\frac{132}{152}$ compares the apples sold to the oranges sold. Should $\frac{132}{152}$ be divided by 3 or 4 to reduce? _____

$\frac{132}{152} =$ _____

**21.** John baptized Jesus in the River Jordan. The Jordan empties into the Dead Sea, which is 1,310 feet below sea level. How many yards below sea level is the Dead Sea? Write the remainder as a fraction.

_____ yd.

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## Story Problem Fun

**22.** The smallest official park is located in Oregon. The park is 24 inches across. How many feet is 24 inches?
_____ feet

**23.** Agriculture makes up about $\frac{4}{100}$ of Oregon's gross product. Write $\frac{4}{100}$ as a decimal. _____

**24.** One section of the Big Wood River in Idaho is about 30.0 meters deep and only 1.2 meters wide. How much deeper than wide is that part of the river? _____ meters

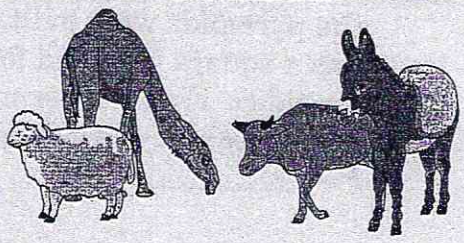
**25.** The oldest city in the United States is St. Augustine, Florida. It was founded in 1565 by the Spanish explorer Pedro Menéndez. About how many centuries old is the city?
_____ centuries

**26.** South Dakota is home to the largest buffalo herd in the United States. Extremely large buffaloes may weigh $1\frac{1}{2}$ tons. How many pounds is $1\frac{1}{2}$ tons? _____ pounds

**27.** The Gideons first placed Bibles in motel rooms in Montana. If the Gideons had 1,000 Bibles to put in 20 motels, how many Bibles could they put in each motel? _____ Bibles

**28.** Before Satan troubled Job, Job had 7,000 sheep, 3,000 camels, 500 oxen, and 500 donkeys. God blessed Job for his faithfulness by giving him two times as many animals. How many animals did he have?
_____ sheep, _____ camels,
_____ oxen, _____ donkeys

**29.** Before Satan troubled Job, Job had seven sons and each son had three sisters. How many children did Job have? _____ children



**30.** The apostle Paul was a tent maker. Suppose he had materials these lengths: $1\frac{3}{4}$ yd., $2\frac{1}{4}$ yd., $3\frac{3}{4}$ yd., and $2\frac{3}{4}$ yd. What was the total length?
_____ yd.

**31.** Suppose there were 43 lions in the den with Daniel. A male lion eats about 75 pounds of meat at one meal. How many pounds could 43 lions eat? _____

**32.** One lion can drag as much as 6 men. How many men would it take to drag as much as 12 lions?
_____ men

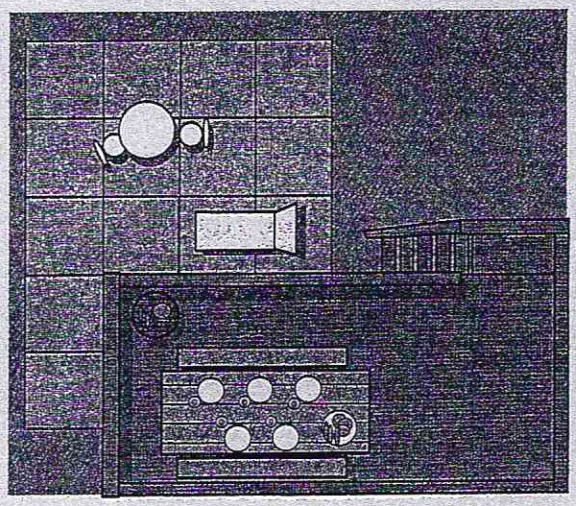
**33.** A decagon is a polygon with 10 sides. If the length of each side of a decagon is 21 cm, what is its perimeter? _____ cm

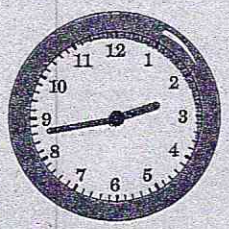
## Brain Boosters

1. Prince Henry of Portugal used an astrolabe to guide his ship. The astrolabe was invented by the Greeks around 300 B.C. About how many years ago was the astrolabe invented? _____
(Add to find year lapse if one year is A.D. and the other is B.C.)

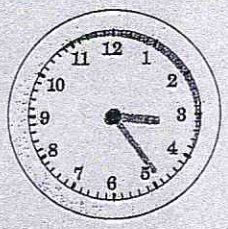
2. The "teddy bear" was named after President Theodore Roosevelt. Suppose a store sold 2,358 teddy bears each month for one fourth of a year. How many bears would they sell during that time?
_____ bears

3. The Sharpe family plans to add a rectangular patio to their house. The balcony of the house covers part of the planned patio. Each square represents one square yard. How many square yards is the patio? _____ sq. yd. How many square yards of the patio does the balcony cover?
_____ sq. yd.





2:43 P.M.

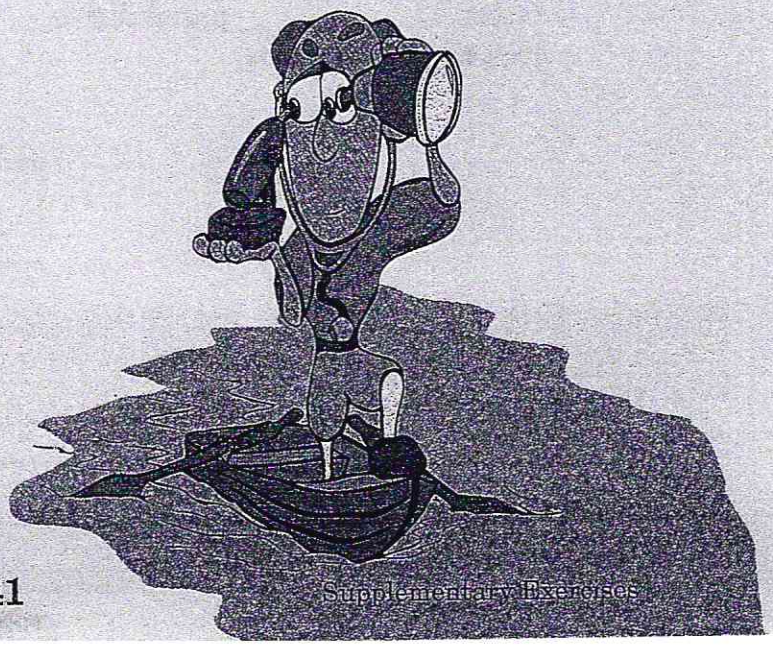


3:24 P.M.

_____ min.
(time lapse)

4. At 2:43 P.M., John Glenn landed in the Atlantic Ocean. At 3:24 P.M., he crawled out of *Friendship 7*. Set the clocks at the left to the two times and find the time lapse.

5. Dr. Wilfred Grenfell, an English medical missionary, served the Eskimos living near the Arctic Circle. During his 40 years of service, he was a surgeon, scientist, sailor, and explorer. During one three-month period, he treated about 300 patients each month. How many patients did he treat during the three months? _____ patients



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## Brain Boosters

**6.** A package of fruit pops contains six pops. How many packages must be bought to give thirty-five children two pops each? (A fraction of a package cannot be bought.)
_____ packages

**7.** Grapes cost $1.69 per pound and bananas cost 89¢ per pound. At that rate, how much would 3 pounds of bananas and 1 pound of grapes cost? _____

**8. Answer the number riddles.**

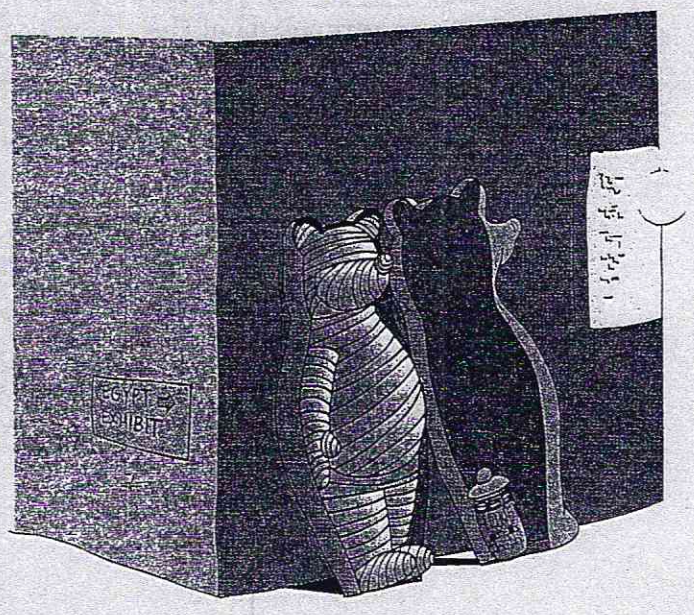
**a.** A number is divided by 8. The quotient is 7. What is the number? _____

**b.** A number is multiplied by 7. The product is 63. What is the number? _____

**c.** A number is multiplied by 5. 3 is added to the product. The sum is 28. What is the number?
_____

**d.** A number is divided by 6. 1 is added to the quotient. The sum is 9. What is the number?
_____

**9.** Honey is the only food that does not spoil. If archaeologists found some honey that was put in an Egyptian tomb in 500 B.C., how old is the honey now?
_____ years (Remember to add to find time lapse if one time is B.C. and the other is A.D.)



**10.** Some car license tags were made using the letter *A* and the numbers *1, 2,* and *3*. How many possible arrangements could begin with the letter *A*? _____ possibilities
List the possibilities.

| A | 1 | 2 | 3 |
|---|---|---|---|