

### 3.1 Divide Whole Numbers

#### Key Vocabulary

Compatible numbers - make a mental computation easier

Divisor - number that you are using to divide by

Dividend - number that is being divided

Quotient  
divisor | dividend

Quotient - the answer to a division problem

*Does McDonald's serve cheese Burgers?*



**Example:** Find the quotient.

1.)  $28,671 \div 57$

Handwritten long division for  $28,671 \div 57$ . The quotient is 503. The work shows:  $57 \overline{) 28671}$ .  $57 \times 5 = 285$ ,  $57 \times 3 = 171$ . The final result 503 is boxed.

2.)  $504,144 \div 36$

Handwritten long division for  $504,144 \div 36$ . The quotient is 14,004. The work shows:  $36 \overline{) 504144}$ .  $36 \times 4 = 144$ . The final result 14,004 is boxed.

**Example:** Find the quotient.

3.)  $400,458 \div 186 = 2153$

Handwritten long division for  $400,458 \div 186$ . The quotient is 2153. The work shows:  $186 \overline{) 400458}$ .  $186 \times 2 = 372$ ,  $186 \times 1 = 186$ ,  $186 \times 5 = 930$ ,  $186 \times 3 = 558$ . The final result 2153 is boxed.

4.)  $91,440 \div 360 = 254$

Handwritten long division for  $91,440 \div 360$ . The quotient is 254. The work shows:  $360 \overline{) 91440}$ .  $360 \times 2 = 720$ ,  $360 \times 5 = 1800$ ,  $360 \times 4 = 1440$ . The final result 254 is boxed.

**Example:** Find the quotient.

5.)  $606,048 \div 642 = \boxed{944}$

Handwritten long division for  $606,048 \div 642$ . The quotient is 944. The work shows the divisor 642 dividing into 606048. The first step is  $642 \times 9 = 5778$ , which is subtracted from 6060 to get 2820. The second step is  $642 \times 4 = 2568$ , which is subtracted from 2820 to get 252. The third step is  $642 \times 4 = 2568$ , which is subtracted from 2520 to get 0. The final quotient is 944.

6.)  $170,000 \div 20 = \boxed{8500}$

Handwritten long division for  $170,000 \div 20$ . The quotient is 8500. The work shows the divisor 20 dividing into 170000. The first step is  $20 \times 8000 = 160000$ , which is subtracted from 170000 to get 10000. The second step is  $20 \times 500 = 10000$ , which is subtracted from 10000 to get 0. The final quotient is 8500.

**Example: \*\*PROBLEM SOLVING\*\***

7.) The shoreline of the United States is 95,439 miles. Delaware's shoreline is 381 miles. How many times the length of Delaware's shoreline is the United States?

Handwritten multiplication:  $381 \times 5 = 1905$ .

Handwritten long division for  $95,439 \div 381$ . The quotient is 250 with a remainder of 189. The work shows the divisor 381 dividing into 95439. The first step is  $381 \times 200 = 76200$ , which is subtracted from 95439 to get 19239. The second step is  $381 \times 50 = 19050$ , which is subtracted from 19239 to get 189. The final quotient is 250 R 189.

$250 \text{ R } 189$

8.) Kansas's land area is 81,823 square miles and its water area is 459 square miles. How many times greater is the land area than the water area?