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## **GCFs by Successive Division**

Here is a different way to find the greatest common factor (GCF) of two numbers. This method works well for large numbers.

Find the GCF of 848 and 1.325.

Step 1 Divide the smaller number into the larger.

1 R477 848)1,325 848 477

**Step 2** Divide the remainder into the divisor. Repeat this step until you get a remainder of 0.

| 1 R371  | 1 R106               | 3 R53   | 2 R0   |
|---------|----------------------|---------|--------|
| 477)848 | $371)\overline{477}$ | 106)371 | 53)106 |
| 477     | 371                  | 318     | 106    |
| 371     | 106                  | 53      | 0      |

Step 3 The last divisor is the GCF of the two original numbers. The GCF of 848 and 1,325 is 53.

## Use the method above to find the GCF for each pair of numbers.

| <b>1.</b> 187; 578        | <b>2.</b> 161; 943         |
|---------------------------|----------------------------|
| <b>3.</b> 215; 1,849      | <b>4.</b> 453; 484         |
| <b>5.</b> 432; 588        | <b>6.</b> 279; 403         |
| <b>7.</b> 1,325; 3,498    | <b>8.</b> 9,840; 1,751     |
| <b>9.</b> 3,484; 5,963    | <b>10.</b> 1,802; 106      |
| <b>11.</b> 45,787; 69,875 | <b>12.</b> 35,811; 102,070 |