
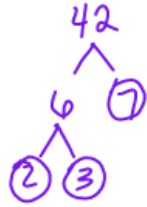

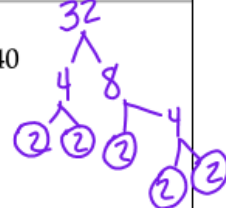


## GCF (4-2)

|   |   |
|---|---|
| <b>GCF</b>  | <del>Decode</del>   |
| Definition<br>the largest factor<br>that 2 or more<br>#'s share | Example<br>15                  12<br>1 (3) 5 15    1 2 (3) 4 6 12 |

|   |   |
|---|---|
| <b>Relatively Prime</b>                             | Decode  |
| Definition<br>two #'s are r.p. if<br>their GCF is 1 | rel.a.tiv.e.ly prime .<br>Example<br>11                  12<br>(1) 11    (1) 2 3 4 6 12 |

**Example 1.** Find the GCF.

| I Do   | You Do  |
|--|---|
| <p>21, 42</p> <p>  <br/>  </p> <p>           21: <del>3 · 7</del><br/>           42: <del>2 · 3 · 7</del> </p> <p><math>3 \cdot 7 = \boxed{21}</math></p> | <p>12, 32</p>   |
| <p>27, 45, 90</p>  | <p>16, 32, 40</p> <p>  <br/>  </p> <p>           16: <del>2 · 2 · 2 · 2</del><br/>           32: <del>2 · 2 · 2 · 2 · 2</del><br/>           40: <del>2 · 2 · 2 · 5</del> </p> <p><math>2 \cdot 2 \cdot 2 = \boxed{8}</math></p> |

IXL Lessons: 7<sup>th</sup> Grade → A.4, A.5



**Example 2.** Find the GCF. Tell whether the numbers are relatively prime.

| I Do  | You Do  |
|---|---|
| <p style="text-align: center;">18, 33</p> $\begin{array}{c} \wedge \quad \wedge \\ 3 \quad 6 \quad 3 \quad 11 \\ \wedge \\ 2 \quad 3 \end{array}$ <p><math>2 \cdot 3 \cdot 3</math>      <math>3 \cdot 11</math>      <math>3</math> not r.p.</p> | <p style="text-align: center;">39, 50</p> $\begin{array}{c} \wedge \quad \wedge \\ 3 \quad 13 \quad 5 \quad 10 \\ \wedge \quad \wedge \\ 2 \quad 5 \end{array}$ <p><del><math>3 \cdot 13</math></del>      <del><math>2 \cdot 5</math></del>      <math>1</math> r.p.</p> |

### Stop & Jot

How do you know if a number is relatively prime?

**Example 3.** Write the GCF of the monomials.

| I Do   | You Do                                   |
|--|--|
| <p>6 <span style="margin-left: 100px;">15</span></p> <p style="margin-left: 20px;">(2) (3) <span style="margin-left: 100px;">(3) (5)</span></p> <p style="margin-left: 100px;"><span style="background-color: #c8e6c9; border-radius: 50%; padding: 2px;">6x</span>, <span style="background-color: #c8e6c9; border-radius: 50%; padding: 2px;">15x</span></p> <p>6x: <del>2</del> · <del>3</del> · <del>x</del></p> <p>15x: <del>3</del> · <del>5</del> · <del>x</del></p> <p style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">3x</p>   | <p>20x<sup>2</sup>, 36x</p>              |
| I Do   | You Do                                   |
| <p>32y<sup>2</sup> <span style="margin-left: 100px;">32y<sup>2</sup>, 6x<sup>2</sup>y</span> <span style="margin-left: 100px;">6x<sup>2</sup>y</span></p> <p style="margin-left: 20px;">(2) (2) <span style="margin-left: 100px;">(2) (4)</span> <span style="margin-left: 100px;">(2) (3)</span></p> <p style="margin-left: 100px;">(2) (2)</p> <p>32y<sup>2</sup>: <del>2</del> · <del>2</del> · <del>2</del> · <del>2</del> · <del>2</del> · <del>2</del> · <del>y</del> · <del>y</del></p> <p>6x<sup>2</sup>y: <del>2</del> · <del>x</del> · <del>x</del> · <del>3</del> · <del>y</del></p> <p style="text-align: center; border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">2y</p> | <p>7xy<sup>3</sup>, 28xy<sup>2</sup></p> |