$$\frac{3}{4} \div \frac{1}{8} = 6 \qquad \frac{1}{3} \div \frac{1}{9} = 3 \qquad \frac{2}{5} \div \frac{1}{10} = 4$$
$$3x8 \div 4x1 = 6 \qquad 1x9 \div 3x1 = 3 \qquad 2x10 \div 5x1 = 4$$

Rather than multiplying diagonally and dividing, we will use the second pattern and invert the divisor and then multiply the numerators, then the denominators, we get the same result.

## **Algorithm for Dividing Fractions**

- **1.** Make sure you have fractions
- 2. Invert the divisor
- 3. Cancel, if possible
- 4. Multiply numerators
- 5. Multiply denominators
- 6. Simplify