Multiplication as Scaling

Think of multiplication as scaling or resizing.

Example 1: \(2\frac{1}{2} \times 5 > 5\)

Multiplying a number by a fraction greater than 1 results in a product greater than the starting number.

Example 2: \(\frac{3}{4} \times 5 < 5\)

Multiplying a number by a fraction less than 1 results in a product less than the starting number.

Example 3: \(\frac{2}{2} \times 5 = 5\)

Multiplying by a fraction equal to 1 results in a product equal to the starting number.

Without multiplying, decide which symbol belongs in the box: <, >, or =.

1. \(3\frac{1}{2} \times 3\frac{1}{3} \boxed{3}\)
2. \(\frac{2}{3} \times 2\frac{1}{3} \boxed{2}\)
3. \(8\frac{2}{5} \times \frac{5}{5} \boxed{8}\)
4. \(\frac{3}{4} \times 4\frac{2}{3} \boxed{4}\)
5. \(4\frac{1}{2} \times 1\frac{1}{3} \boxed{1}\)
6. \(\frac{2}{5} \times 5\frac{2}{3} \boxed{5}\)
7. \(3\frac{2}{5} \times \frac{4}{4} \boxed{3}\)
8. \(\frac{5}{8} \times 8\frac{1}{3} \boxed{8}\)
9. \(5\frac{1}{2} \times 6\frac{2}{3} \boxed{6}\)
10. \(\frac{3}{8} \times 2\frac{1}{3} \boxed{2}\)
11. \(10\frac{2}{5} \times \frac{8}{8} \boxed{10}\)
12. \(\frac{1}{2} \times 9\frac{1}{3} \boxed{9}\)