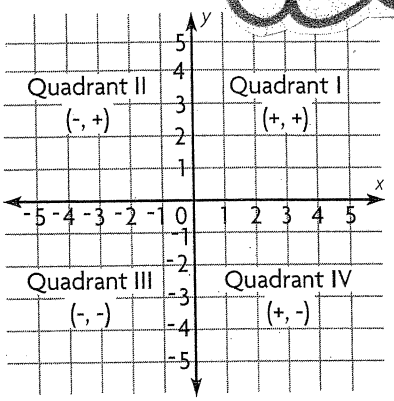
Name _____

Ordered Pair Relationships

You can tell which quadrant to graph a point in by looking at whether the coordinates are positive or negative.



Find the quadrant for the point (4, ⁻5).

Step 1 The *x*-coordinate is 4, a positive number. So, the point must be in Quadrant I or IV.

Step 2 The *y*-coordinate is ⁻5, a negative number. So, the point must be in Quadrant III or IV.

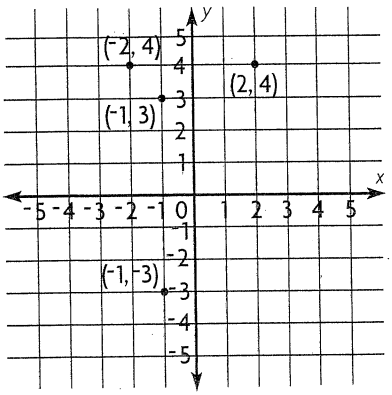
Step 3 The only quadrant that the *x*- and *y*-coordinates have in common is Quadrant IV.

So, the point (4, ⁻5) is in Quadrant IV.

Two points are reflections of each other if the x-axis or y-axis forms a line of symmetry for the two points. This means that if you folded the graph along that axis, the two points would line up.

(⁻1, 3) and (⁻1, ⁻3) are reflected across the *x*-axis. The *x*-coordinates are the same. The *y*-coordinates are opposites.

(2, 4) and (⁻2, 4) are reflected across the *y*-axis. The *y*-coordinates are the same. The *x*-coordinates are opposites.



Identify the quadrant where the point is located.

1. (⁻1, 5)

x-coordinate: ⁻1 Quadrant: _____ or _____

y-coordinate: 5 Quadrant: _____ or _____

The point is in Quadrant _____.

2. (⁻3, ⁻2)

x-coordinate: ⁻3 Quadrant: _____ or _____

y-coordinate: ⁻2 Quadrant: _____ or _____

The point is in Quadrant _____.

3. (2, 4)

Quadrant: _____

4. (⁻6, 7)

Quadrant: _____

5. (8, ⁻1)

Quadrant: _____

6. (⁻7, ⁻5)

Quadrant: _____

The two points are reflections of each other across the *x*- or *y*-axis. Identify the axis.

7. (2, 7) and (⁻2, 7)

axis: _____

8. (⁻1, 4) and (⁻1, ⁻4)

axis: _____

9. (5, ⁻6) and (5, 6)

axis: _____

10. (8, ⁻3) and (⁻8, ⁻3)

axis: _____

1. Compare 1.54 and 1.45.

- Align the decimal points.

  1.54

  1.45

- Are the ones digits the same? _____
- Are the tenths the same? _____
- Which is greater? _____ > _____

So, 1.54 ◯ 1.45.

Remember

- To compare decimals, align the decimal points and compare digits from left to right.
- To compare fractions, rewrite as equivalent fractions with a common denominator; then compare numerators.
- To compare decimals and fractions, write them in the same form and then compare the two.

Compare. Write < or > in each ◯.

2. 0.66 ◯ 0.60

Think: I can use _____.

3. $\frac{2}{5}$ ◯ $\frac{4}{5}$

Think: I can compare _____.

4. 0.5 ◯ $\frac{3}{4}$

Think: I can rename so both are _____ _____.

5. 0.29 ◯ $\frac{1}{4}$

Think: I can rename so both are _____ _____.

6. $\frac{1}{2}$ ◯ 0.6

7. $\frac{3}{7}$ ◯ $\frac{3}{8}$

8. $\frac{2}{10}$ ◯ $\frac{9}{20}$

9. 0.90 ◯ 0.09

10. $\frac{10}{16}$ ◯ $\frac{7}{8}$

11. 2.89 ◯ 3.39

12. 4.56 ◯ 4.65

13. 0.81 ◯ $\frac{4}{5}$

14. Janna runs 1 kilometer in 0.2 hour. Mike runs 1 kilometer in $\frac{1}{4}$ hour. Who runs the distance faster? Explain how you found your answer.

_____

_____

_____