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# Unit 5: Pre-Unit Diagnostic Assessment

Do not use a calculator.

1. a. A dolphin is at the surface of the ocean. What is the dolphin's elevation?  
b. The dolphin dives 20 feet below the surface of the ocean. What is its new elevation?

2. Place and label the following numbers on the number line.

a. -1

b. 1.75

c. -1.75

d. -2

e.  $-2\frac{1}{2}$

f.  $-\frac{5}{2}$

g.  $\frac{9}{4}$



3. Kiran says that  $-2 < -5$ . Do you agree with Kiran? Explain or show your reasoning.

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4. a. Put these numbers in order of their distance from 0 on the number line, starting with the smallest distance:

$$-26, -12.7, -\frac{9}{2}, \frac{2}{100}, 7, 11\frac{1}{4}, \frac{41}{2}, 35$$

- b. Find the values of  $|-12.7|$  and  $|11\frac{1}{4}|$ .

5. a. Andre received and spent money in the following ways last month. For each example, write a positive or negative number to represent the change in money from his perspective.
- His uncle gave him \$25 as a present.
  - He earned \$18 dollars tutoring.
  - He spent \$10 on a book.
- b. What does 0 mean in this situation?

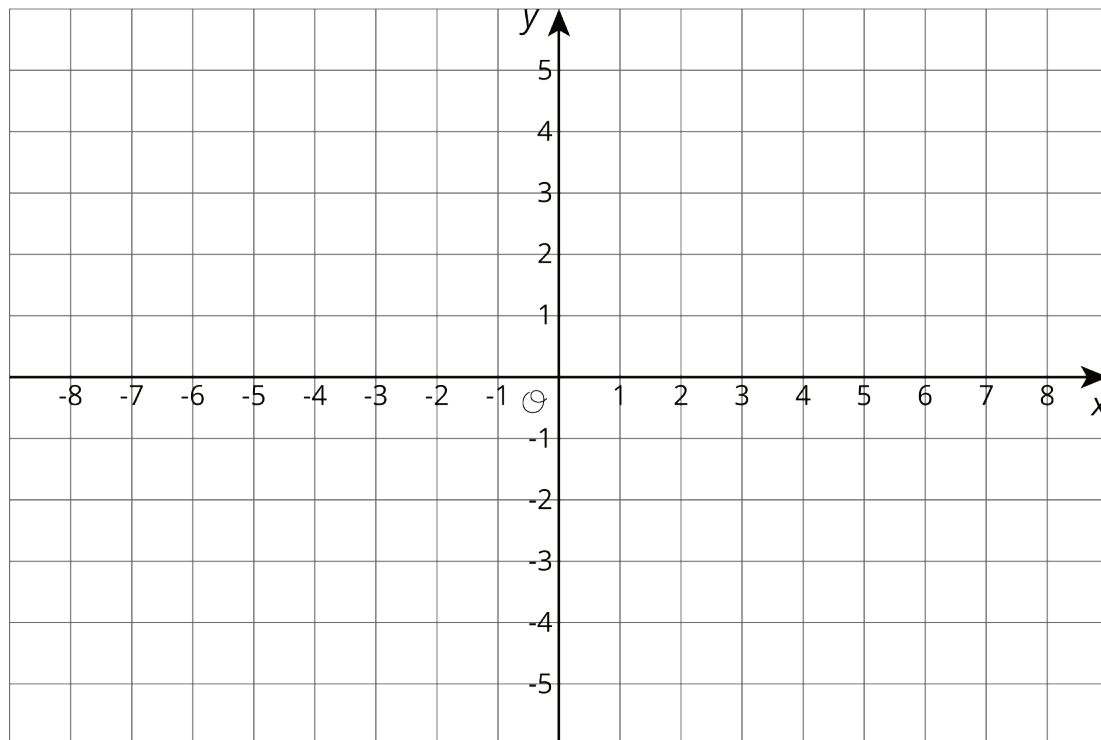
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6. a. Plot and label these four points in the coordinate plane.

$$A = (2, 3), B = (-2, 1), C = (4, -5), D = (-3, -5)$$



- b. Find the distance between  $C$  and  $D$ .