Name _____   **Date** _____

Interpret and Use Absolute Value: Play Answer Sheet

Selected-Response Items—Indicate the letter(s) only.

1. _____   2. _____   3. _____

4. _____   5. _____

Fill-in-the-Blank and Graphing Items

6. (a)_____   7. (a)_____   8. (a)_____

   (b)_____   (b)_____   (b)_____

   (c)_____   (c)_____   (c)_____

9. (a)_____   10. (a)_____   11. (a)_____

   (b)_____   (b)_____   (b)_____
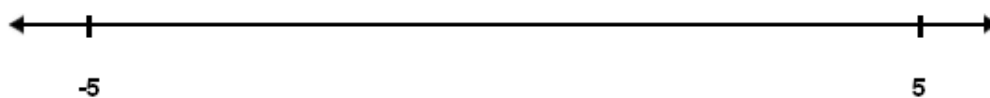
   (c)_____

12. _____   13. _____   14. _____

15.

-5   5

Interpret and Use Absolute Value: Play

Number of Questions: 15

Questions 1–5 are selected-response questions. Write the letters of the correct answers on the answer sheet.

1. Which expressions are equivalent to the absolute value of 5? *Select all that apply.*

   A. -5
   B. 5
   C. $|-5|$
   D. $|5|$

2. Select the expression with the greatest value.

   A. -20
   B. $|-25|$
   C. $|-5|$
   D. 21

3. A group of hikers set up camp on a mountain trail with a steady change in elevation. They measured the change in elevation from the camp to several locations on the trail.

   Which change in elevation indicates the location closest to the camp?

   A. -25 m
   B. 325 m
   C. -95 m
   D. 65 m

4. Which of the following statements are true? *Select all that apply.*

   A. $|2.34| < |3.5|$
   B. $|-5| < |1.5|$
   C. $|9| = |-9|$
   D. $\left|-\dfrac{1}{4}\right| > |0|$

5. Lauren was snorkeling 1 foot below the surface of the water when she spotted some shells on the sandy bottom 6 feet below her.

   She dove down and collected the shells. The dots represent the depth of Lauren snorkeling and the depth of the shells she sees below her.

   Which statements are true? *Select all that apply.*

   A. The magnitude of -7 is greater than the magnitude of -1.

   B. The absolute value of -7 is greater than the absolute value of -1.

   C. Lauren is snorkeling at a greater depth than the shells.

   D. The points on the number line represent magnitude, where the numbers farther to the left are larger numbers.

   E. The points on the number line can represent depth, where the numbers farther to the left have a greater absolute value.

   F. Zero represents sea level.

Questions 6–15 are fill-in-the-blank questions. Write the correct answers in the spaces provided on the answer sheet.

6. Fill in the blanks to make the statements true.

   A negative number with an absolute value greater than 10: **(a)**_____

   A positive number with an absolute value less than 5: **(b)**_____

   A negative integer with an absolute value greater than $|-3|$ and less than $|5|$:

   (c)_____

7. Fill in the blanks to make the statements true.

   A negative number with an absolute value less than 4: **(a)**_____

   A positive number with an absolute value less than 4: **(b)**_____

   A positive number and a negative number with the same absolute value:
   (c)_____

8. Use what you learned about absolute values to complete the following statements.
   Choose from the options provided below each statement.

   Absolute value of opposites are **(a)**_____ each other.
   A. greater than   **B.** less than   **C.** equal to

   The closer a number is to zero, the **(b)**_____ the absolute value.
   A. larger   **B.** smaller

   The greater the absolute value, the **(c)**_____ the number is from zero.
   A. farther   **B.** closer

9. Classify each number based on the comparison of the number to its absolute value.

   A. −5   **B.** 4   **C.** 0   **D.** −10   **E.** 300   **F.** −1.5

   Number is greater than its absolute value: **(a)**_____

   Number is equal to its absolute value: **(b)**_____

   Number is less than its absolute value: **(c)**_____

10. Which pairs of expressions have the same or difference absolute values?

    Classify each pair into the appropriate group.

    A. −5 and (2 + 3)   **B.** (7 − 6) and −1   **C.** −19 and (9 − 1)

    D. (4 × 6) and 46   **E.** (8 − 8) and 0

    Same absolute values: **(a)**_____

    Different absolute values: **(b)**_____

11. Decide which questions refer to situations in which you would compare actual values and in which you would compare the absolute values.

   A. What is the higher temperature? (−10° or −5°)

   B. Who has the greatest debt? (−$5 or −$10)

   C. Which number is greater? (−5 or 10)

   D. Which is the greatest depth? (−10 ft or −5 ft)

   E. Which negative number is smaller? (−10 or −5)

   Compare actual values: **(a)**_____

   Compare absolute values: **(b)**_____

12. Kori's bank balance is −$37. Jason's bank balance is −$49.

   Which amount represents the greater debt? $ _____

13. A group of students designed and threw paper airplanes to see who could get their airplane closest to a targeted line. To test their airplanes, they stood on the football field and aimed for the 50-yard line.

   If their plane landed before the 50-yard line, they were given a negative score. If their plane landed past the 50-yard line, they were given a positive score. The scores reflected the distance, measured in feet, from the line. A score of 0 would mean that their plane landed on the 50-yard line.

   Based on each student's score, order the options from closest to farthest from the line.

   Closest to farthest: _____

   A. Tammy, −1.5   **B.** Joseph, +3   **C.** Bree, −2.5

   D. Samuel, +5   **E.** Juan, −3.25   **F.** Kinley, +3.5

14. On an electronic guitar tuner, measurements farther from zero (either positive or negative) are tuned worse than measurements closer to zero. Measurements of exactly zero are properly tuned.

   Order the options from most tuned strings to least tuned strings on your answer sheet.

   Properly tuned to worst tuned: _____

   A. low E string: +0.25   **B.** A string: 0   **C.** D string: −0.70

   D. G string: −0.35   **E.** B string: +0.55   **F.** high E string: +0.15

Question 15 is a graphing question. Graph the correct answers on the number line provided on the answer sheet.

15. Partition the number line on the answer sheet. Then, place all points that have an absolute value of 3.