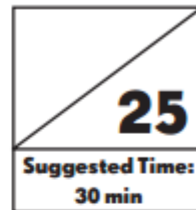


## CHAPTER TEST B



# The Real Number System



## Concepts and Skills (10 × 1 point = 10 points)

Write each number in  $\frac{m}{n}$  form where  $m$  and  $n$  are integers with  $n \neq 0$ . Simplify your answers.

1.  $-5.64$

2.  $8\frac{1}{7}$

3.  $2.075\%$

4.  $-199.9\%$

For each pair of numbers, find the absolute value of each number. Then, determine which number is farther from 0 on a number line.

5.  $\frac{127}{9}$  and  $\frac{15}{2}$

6.  $-50.47$  and  $-5.05$

Fill in the blank.

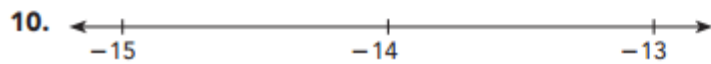
7. There are \_\_\_\_\_ significant digits in  $-0.0009040$ .

Round each number to the given number of significant digits.

8.  $36,098,111$  (to 4 significant digits) \_\_\_\_\_


9.  $-189,010$  (to 2 significant digits) \_\_\_\_\_

Locate the rational number  $-\frac{99}{7}$  on the number line.



**Problem Solving** (Questions 11 to 13:  $3 \times 3$  points = 9 points,  
Questions 14 to 16:  $3 \times 2$  points = 6 points)


**Solve. Show your work.**

11.  Using a calculator, express the rational numbers  $-\frac{19}{12}$  and  $-\frac{67}{46}$  in decimal form and determine which rational number is smaller.

12. Using long division, write the rational numbers  $\frac{43}{9}$  and  $\frac{45}{11}$  in decimal form using bar notation and order them on a number line.


13. You are given the list of real numbers below.

$$-\sqrt[3]{305\pi}, -9.8612, -\pi^2, \text{ and } -\frac{79}{8}$$

- a)  Represent each real number in decimal form with 3 decimal places.

- b) Order the real numbers from greatest to least using the symbol  $>$ .

- c) Locate each number on a real number line.

14.  With the use of a calculator, locate the irrational number  $\sqrt{629}$  to 2 decimal places on the number line using rational approximations.

15. The population of California in 2009 is approximately 36,961,664. Round the population to 3 significant digits.

16. Given that 1 fluid ounce = 29.57353 milliliters, what is the approximate value of milliliters to 1 fluid ounce if you round the figure to 2 significant digits?

**Chapter 1 Test B**

1.  $-\frac{141}{25}$

2.  $\frac{57}{7}$

3.  $\frac{83}{4,000}$

4.  $-\frac{1,999}{1,000}$

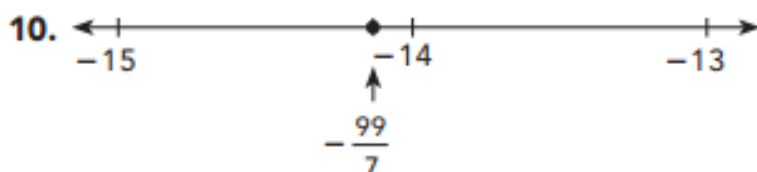
5.  $\frac{127}{9}$ ;  $\frac{15}{2}$ ;  $\frac{127}{9}$  is farther from 0.

6. 50.47; 5.05;  $-50.47$  is farther from 0.

7. 4

8. 36,100,000

9.  $-190,000$



11.  $-1.5833\dots$ ;  $-1.457$ ;  $-\frac{19}{12}$  is smaller.

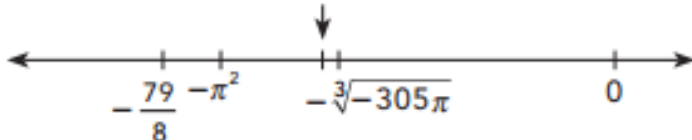
12.  $4.\overline{7}$ ;  $4.\overline{09}$



13. a)  $-9.859$ ;  $-9.861$ ;  $-9.870$ ;  $-9.875$

b)  $-\sqrt[3]{305\pi} > -9.8612 > -\pi^2 > -\frac{79}{8}$

c)  $-9.8612$



15. 37,000,000

16. 30