

# Intermediate Algebra, 3/e

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Chapter 1 - The Real Numbers

Form A-A

## PRACTICE TEST

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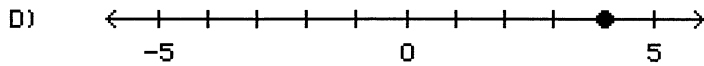
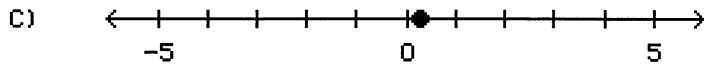
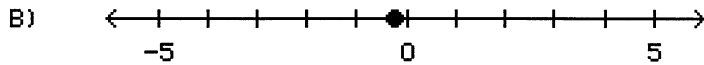
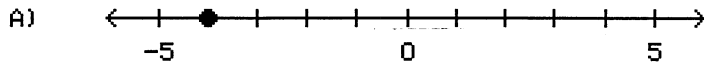
- Use braces to list the elements of the set of even natural numbers less than 12.  
A)  $\{2, 4, 6, 8, 10, 12\}$                       B)  $\{2, 4, 6, 8, 10\}$   
C)  $\{0, 2, 4, 6, 8, 10, 12\}$                   D)  $\{0, 2, 4, 6, 8, 10\}$
- What is the best classification for  $-0.4$ ?  
A) integer  
rational number  
real number                      B) whole number  
integer  
real number  
C) rational number  
real number                      D) irrational number  
real number
- Write  $\frac{5}{6}$  as a decimal.  
A)  $0.8\bar{3}$                       B)  $8.\bar{3}$   
C)  $0.08\bar{3}$                       D)  $0.008\bar{3}$
- Write  $0.61$  as a fraction.  
A)  $\frac{0.61}{100}$                       B)  $\frac{1}{61}$   
C)  $\frac{61}{100}$                       D)  $\frac{61}{10}$

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5. Graph the additive inverse of  $\frac{1}{4}$  on the number line.



6. Find:  $|-18|$

A)  $\frac{1}{18}$                       B)  $-\frac{1}{18}$

C) -18                        D) 18

7. Find:  $8 + (-14)$

A) 22                        B) -22

C) 6                         D) -6

8. Find:  $-18 - 5$

A) 23                        B) -23

C) 13                        D) -13

9. Which law is illustrated by the following statement?

$$7 \cdot (9 \cdot 4) = (7 \cdot 9) \cdot 4$$

A) commutative law of multiplication

B) associative law of multiplication

C) associative law of addition

D) commutative law of addition

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10. Find:  $-2 \cdot (-5)$   
A) 3                      B) -10  
C) 10                     D) -7
11. Find:  $-\frac{3}{4} \div \left(-\frac{1}{12}\right)$   
A)  $\frac{1}{16}$                       B) 9  
C)  $-\frac{1}{16}$                      D) -9
12. Simplify:  $-6(x + 1)$   
A)  $-6x + 6$                 B)  $6x + 1$   
C)  $-6x + 1$                 D)  $-6x - 6$
13. Simplify:  $[(7x^2 - 7) + (5x + 4)] - [(x - 6) + (6x^2 - 5)]$   
A)  $13x^2 + 5x + 8$             B)  $x^2 + 6x - 14$   
C)  $x^2 + 4x + 8$                 D)  $x^2 + 4x - 14$
14. Find:  $(-5)^4$   
A) 625                      B) 20  
C) -20                      D) -625
15. Write as a fraction:  $x^{-7}$   
A)  $\frac{1}{x^7}$                         B)  $-\frac{x^7}{1}$   
C)  $-\frac{1}{x^{-7}}$                       D)  $-\frac{1}{x^7}$

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16. Perform the indicated operation and simplify:  $\frac{44x^4}{11x^{-6}}$

A)  $4x^2$

B)  $\frac{4}{x^2}$

C)  $\frac{4}{x^{10}}$

D)  $4x^{10}$

17. Simplify:  $(4x^4y^{-4})^2$

A)  $\frac{y^8}{16x^8}$

B)  $\frac{16x^8}{y^8}$

C)  $\frac{8x^4}{y^8}$

D)  $\frac{y^8}{8x^4}$

18. Do the calculation and write the answer in scientific notation:

$$(4.6 \times 10^7) \times (9 \times 10^{-9})$$

A)  $41.4 \times 10^2$

B)  $4.14 \times 10^{-1}$

C)  $4.14 \times 10^{-2}$

D)  $41.4 \times 10^{-2}$

19. Evaluate:  $[-6(6 + 7)] + 8$

A) 14

B) -70

C) -126

D) 86

20. Evaluate:  $-5^3 + \frac{(14 - 8)}{2} + 8 \div 2$

A) 0

B) -118

C) -18

D) -57