

**Chapter 1**  
**Form E**

Choose the correct answer to each problem.

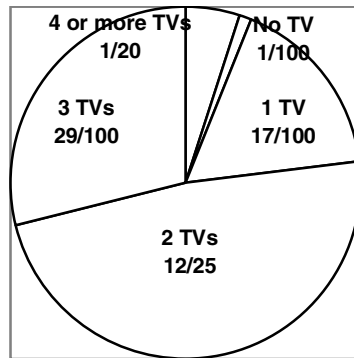
1. Find  $296 - [49 - (17 - 51)]$   
a. 213                      b. 281                      c. 379                      d. 311
2. Find  $17 - 6 \cdot 3 + 4 \div 2$   
a.  $\frac{37}{2}$                       b. 35                      c.  $\frac{3}{2}$                       d. 1
3. Add  $\left(-\frac{7}{12}\right) + \left(-\frac{5}{8}\right)$   
a.  $\frac{29}{24}$                       b.  $-\frac{29}{24}$                       c.  $\frac{35}{96}$                       d.  $\frac{14}{15}$
4. Divide  $\left(\frac{15}{44}\right) \div \left(-\frac{20}{3}\right)$   
a.  $\frac{9}{176}$                       b.  $-\frac{1}{11}$                       c.  $-\frac{25}{11}$                       d.  $-\frac{9}{176}$
5. Find  $(11 - 19)^2(3^2 - 2^2)$   
a. 320                      b. -320                      c. 64                      d. -64
6. Find  $-14^2$   
a. -28                      b. 28                      c. 196                      d. -196
7. Find  $\left|-\frac{18}{19}\right|$   
a.  $-\frac{18}{19}$                       b.  $-1\frac{1}{18}$                       c.  $\frac{18}{19}$                       d.  $1\frac{1}{18}$
8. Find  $\frac{5 - 4(12 - 5)^2}{4 \cdot 2 - 5 \cdot 2}$   
a. 49                      b.  $\frac{49}{2}$                       c.  $\frac{191}{2}$                       d.  $\frac{49}{0}$

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9. Simplify  $12 - 10(x + 3y)$   
 a.  $12 - 10x + 30y$                       b.  $12 - 10x - 30y$   
 c.  $2x + 6y$                                       d.  $-120x - 360y$
10. Simplify  $3[x + 4 - (x - 4)]$   
 a. 24                                      b. 0                                      c.  $2x + 16$                                       d.  $2x + 8$
11. Simplify  $4x^3 - 3x^2 + 6x^3 + x^2$   
 a.  $10x^6 - 2x^4$                       b.  $x + 7x^5$                                       c.  $10x^3 - 2x^2$                                       d.  $8x^6$
12. Evaluate  $x^4 - x^3$  for  $x = -4$   
 a. -192                                      b. 192                                      c. -4                                      d. 320
13. What is the best classification for  $\sqrt{11}$ ?  
 a. Irrational number, real number                      b. Integer, rational number, real number  
 c. Whole number, integer, rational number, real number                      d. Real Number

For problem 14, the circle graph below shows the television ownership status for a certain community.



14. If there are 144,000 people in the community, how many people own 2 televisions?  
 a. 42,340                                      b. 70,080                                      c. 7300                                      d. 24,820
15. Identify the property or operation that is illustrated by  $(x \cdot 3) \cdot 4 = x \cdot (3 \cdot 4)$ .  
 a. Commutative property of addition                      b. Associative property of multiplication  
 c. Commutative property of multiplication                      d. Associative property of addition

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16. Identify the property or operation that is illustrated by  $2 + 4 = 4 + 2$
- a. Commutative property of addition      b. Associative property of multiplication  
c. Commutative property of multiplication      d. Associative property of addition
17. The formula for the perimeter,  $P$ , of a rectangle is  $P = 2L + 2W$  where  $L$  is the length and  $W$  is the width. What is the perimeter of a rectangle with the length of 4 feet and the width of  $\frac{5}{2}$  feet?
- a. 13 feet      b. 18 feet      c. 21 feet      d.  $\frac{13}{2}$  feet
18. Find the solution to the equation:  $-14 - 4x = 10$
- a. -6      b. 1      c. -1      d. 6
19. Translate to an algebraic expression or equation.
- Seven less than twice a number is three more than the number.
- a.  $7 - 2x = 3 + x$       b.  $7 - 2x = 3x$   
c.  $2x - 7 = 3 - x$       d.  $2x - 7 = x + 3$
20. Multiply:  $(6)(-3)(-2)(-1)(5)$
- a. -185      b. -180      c. -150      d. 150