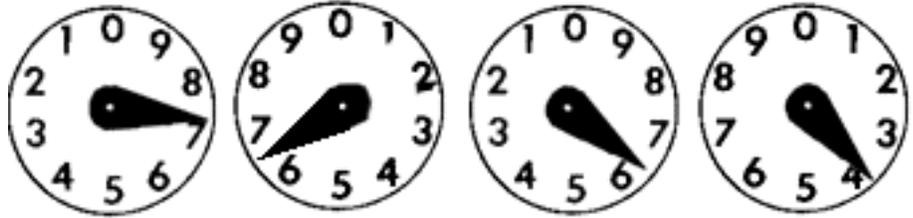


**Test A**

**CHAPTER 1, PROBLEM SOLVING**

- \_\_\_\_\_ 1. What does the **V** in the **RSTUV** procedure mean?
- \_\_\_\_\_ 2. What is inductive reasoning?
- \_\_\_\_\_ 3. Find the next three terms in:  
2, 7, 15, 26, 40, 57, . . .  $\square$ .  $\square$ .  $\square$ .
4. Follow this procedure:  
Select a number **n**, multiply it by 4,  
add 10 to the product, divide the sum  
by 2, and subtract 5 from the quotient
- \_\_\_\_\_ a. Find the results if you use 1, 10  
and 100 for **n**
- \_\_\_\_\_ b. Make a conjecture regarding the  
relationship between the original  
number **n** and the final result
5. Round 719.26 to
- \_\_\_\_\_ a. The nearest tenth
- \_\_\_\_\_ b. The nearest hundred

\_\_\_\_\_ 6. a. Read the meter for today



\_\_\_\_\_ b. If the reading for yesterday was 7601 KWH, how many KWH have you consumed since yesterday?

\_\_\_\_\_ c. If a KWH cost \$0.10, how much was your one-day bill?

\_\_\_\_\_ d. If you estimate the same consumption each day for a 30-day period (a month) what is your estimated monthly bill?

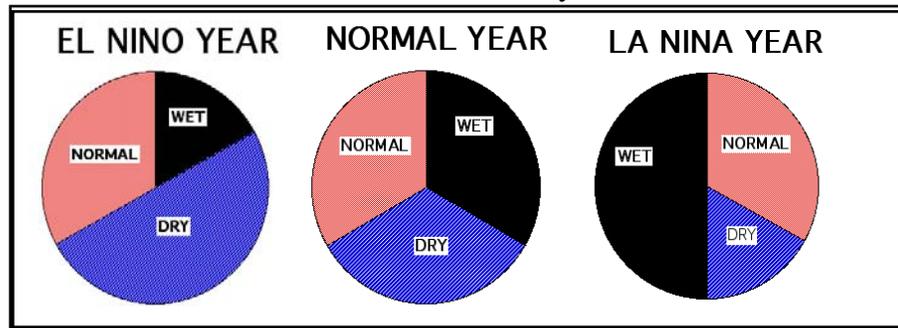
7. The relationship between a dog's age **H** in human years and a dog's age **d** in dog years can be approximated by the formula  $H = 5d + 15$ , where **d** is 2 or more.

The relationship for a cat can be approximated by the formula  $H = 4c + 16$

\_\_\_\_\_ a. Estimate the age **H** of an animal that is 5 years old if the animal is a dog

\_\_\_\_\_ b. Do the same as in part (a), if the animal is a cat

8. The graphs show the probability of wet, dry or normal weather under different weather years



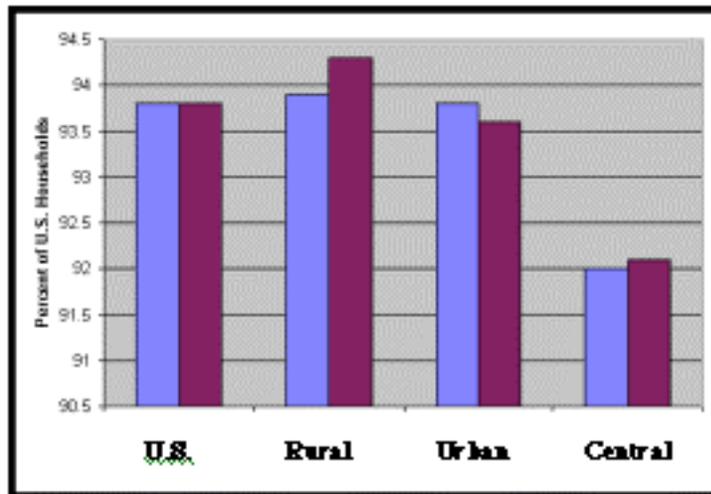
\_\_\_\_\_

- a. What was the largest category in a **La Nina** year?

\_\_\_\_\_

- b. About what fraction of the year was "Wet" in a normal year?

9. The bar graph shows the percent of households with a telephone in different areas during two successive years



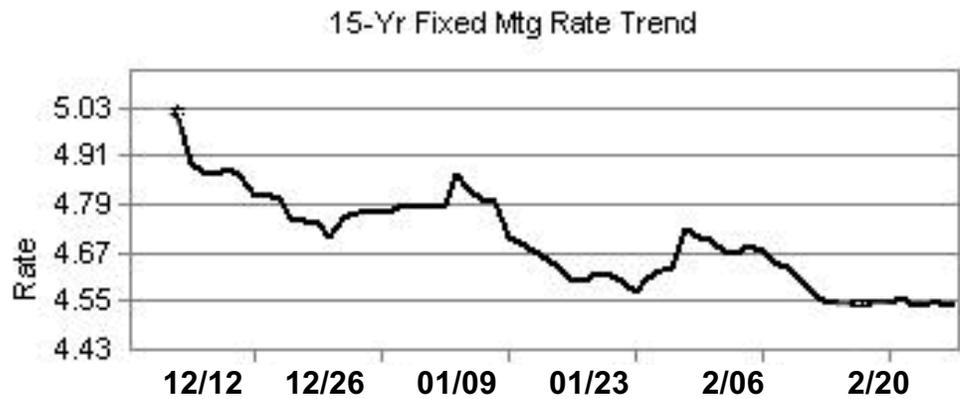
\_\_\_\_\_

- a. What percent of the people had telephones in the Central Area during the first year?

\_\_\_\_\_

- b. Which of the three categories did not change during the two successive years?

10. The line graph shows the 15-year fixed mortgage rates on different dates.



\_\_\_\_\_

a. On what week was the rate the lowest?

\_\_\_\_\_

b. What was approximate rate the week of 2/06?

\_\_\_\_\_

c. What was the difference between the beginning rate and the lowest rate?

**Test B****CHAPTER 1, PROBLEM SOLVING**

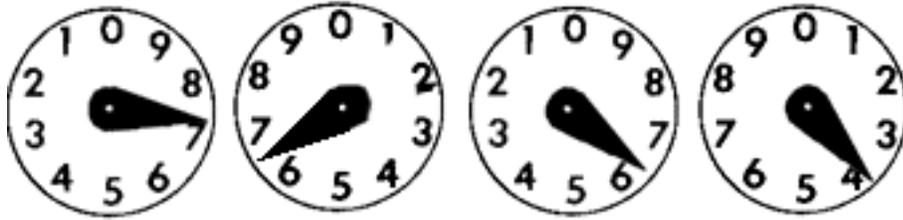
1. What does the **R** in the **RSTUV** procedure mean?
  - a. View
  - b. Verbalize
  - c. Value
  - d. Verify
  - e. None of these
  
2. Inductive reasoning is:
  - a. The process of arriving at a general conclusion on the basis of repeated observations
  - b. The process of arriving at a narrow conclusion on the basis of repeated observations
  - c. The process of arriving at a general conclusion on the basis of a few experiments
  - d. The process of arriving at a specific conclusion on the basis of a few observations
  - e. None of these
  
3. The next three terms in 2, 7, 15, 26, 40, 57, . . . , are   
  - a. 51, 72, 85
  - b. 60, 75, 90
  - c. 58, 78, 101
  - d. 58, 75, 93
  - e. None of these
  
4. Follow this procedure:

Select a number **n**, multiply it by 4, add 12 to the product, divide the sum by 2, and subtract 6 from the quotient

If you use 1, 10 and 100 the results are:

  - a. 2, 20, 200
  - b. 10, 46, 406
  - c. 7, 26, 206
  - d. 3/2, 7, 52
  - e. None of these
  
5. The relationship between, the original number **n** and the final result in Problem 4 is:
  - a. 3 times the original number
  - b. 2 times the original number
  - c. 6 times the original number minus 6
  - d. 4 times the original number plus 6
  - e. None of these

6. When rounded to the nearest tenth, 719.26 is:
- a. 720      b. 719.20      c. 719.2      d. 719.3      e. None of these
7. When rounded to the nearest hundred, 719.26 is:
- a. 719.27      b. 700      c. 800      d. 719      e. None of these
8. The reading for the meter today is:



- a. 7664      b. 7663      c. 8663      d. 8664      e. None of these
9. If the reading for yesterday was 7601 KWH, how many KWH have you consumed since yesterday?
- a. 63      b. 62      c. 1062      d. 1063      e. None of these
10. If a KWH cost \$0.10, and the reading for yesterday was 7601 KWH, your one day bill was:
- a. \$6.30      b. \$6.20      c. \$106.20      d. \$106.30      e. None of these
11. If you estimate the same consumption each day for a 30-day period (a month) your estimated monthly bill will be:
- a. \$189.00      b. \$186.60      c. \$486.00      d. \$186.00      e. None of these

The relationship between a dog's age **H** in human years and a dog's age **d** in dog years can be approximated by the formula

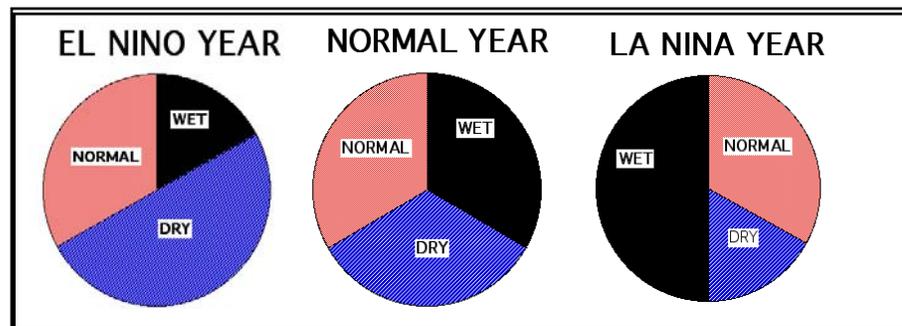
$$\mathbf{H = 5d + 15}, \text{ where } d \text{ is } 2 \text{ or more.}$$

The relationship for a cat can be approximated by the formula

$$\mathbf{H = 4c + 16}$$

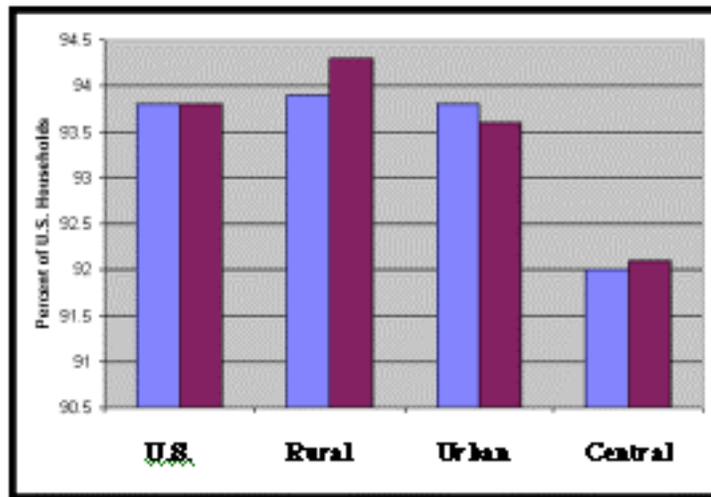
12. The age **H** of a 10 year old dog is:  
a. 25 years    b. 20 years    c. 56 years    d. 65 years    e. None of these
13. The age **H** of a 10 year old cat is:  
a. 25 years    b. 20 years    c. 56 years    d. 65 years    e. None of these

The graphs show the probability of wet, dry or normal weather under different weather conditions



14. The largest category in a **La Nina** year is:  
a. Dry            b. Normal        c. Wet            d. Rainy        e. None of these
15. About what fraction of the year was "wet" in a normal year?  
a.  $\frac{1}{2}$             b.  $\frac{1}{3}$             c.  $\frac{1}{4}$             d.  $\frac{17}{100}$         e. None of these

The graph shows the percent of households with a telephone during two consecutive years.



16. The percent of people with telephones in the Central Area during the first year was:
- a. 93.7      b. 93.8      c. 92.1      d. 92      e. None of these
17. The category that did not change during the two consecutive years was:
- a. U.S.      b. Rural      c. Urban      d. Central      e. None of these

The line graph shows the 15-year fixed mortgage rates during different weeks



18. The interest rate was lowest the week of:
- a. 12/12      b. 01/23      c. 02/06      d. 2/20      e. None of these
19. The rate the week of 2/20 was:
- a. 5.67      b. 4.55      c. 5.03      d. 4.67      e. None of these
20. The difference between the beginning rate and the lowest rate shown was:
- a. 0      b. 0.38      c. 0.48      d. 0.58      e. None of these