

**SIERRA VISTA HIGH SCHOOL**  
**MATHEMATICS DEPARTMENT**

*Nevada High School Mathematics*  
*Practice Proficiency Exam*  
**Mini-Test 7**

1999  
(10 Questions)



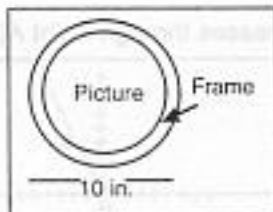
## Practice Proficiency #7

### Numbers and Operations

1. Which group of fractions is listed from smallest to greatest?
- A.  $\frac{9}{10}, \frac{2}{3}, \frac{3}{5}$
- B.  $\frac{3}{4}, \frac{1}{5}, \frac{2}{3}$
- C.  $\frac{2}{5}, \frac{1}{3}, \frac{3}{4}$
- D.  $\frac{2}{3}, \frac{3}{10}, \frac{4}{5}$
- E.  $\frac{7}{10}, \frac{3}{4}, \frac{4}{5}$
2. A can contains 0.5 pint of paint. If  $\frac{2}{3}$  of the paint is used, how much paint is left in the can?
- A.  $\frac{1}{2}$  pint
- B.  $\frac{1}{3}$  pint
- C.  $\frac{2}{3}$  pint
- D.  $\frac{1}{6}$  pint
- E.  $\frac{5}{6}$  pint
3. After a 30% discount, Tony paid \$58.80 for a tape player. What was the price before the discount?
- A. \$69.00
- B. \$73.50
- C. \$76.44
- D. \$84.00
- E. \$88.80

### Measurement and Geometry

4. Flo has a fence around her triangular rose garden. Each side is 25 feet long. She plans to plant a rose bush at each corner and along the border. The rose bushes will be planted 5 feet apart. How many rose bushes will she plant?
- A. 12 bushes
- B. 15 bushes
- C. 18 bushes
- D. 21 bushes
- E. 25 bushes
5. A picture is inside a circular frame which has an outer diameter of 10 inches. What is the total area of the frame and picture?
- A. 10 sq. in.
- B. 15.7 sq. in.
- C. 31.4 sq. in.
- D. 78.5 sq. in.
- E. 100 sq. in.



**Data Analysis, Probability, and Statistics**

6. What is the mode of this set of data?  
 {8, 7, 9, 9, 8, 10, 11, 12, 7, 7, 7, 10, 9, 10, 8, 10, 11, 9, 12, 9}
- A. 5  
 B. 9  
 C. 9.2  
 D. 12  
 E. 20

7. If this data was placed on a circle, what would be the approximate measure of the central angle representing yogurt?

Favorite After-School Snack				
Snack	Pizza	Yogurt	Fruit	Chips
Percent	45%	27%	10%	18%

- A.  $27^\circ$   
 B.  $36^\circ$   
 C.  $97^\circ$   
 D.  $162^\circ$   
 E.  $333^\circ$

**Algebra and Functions**

8. Find the value of the following expression if  $a = 1$ ,  $b = 4$ ,  $c = 2$ , and  $d = 5$

$$\frac{ab - c^2}{d + a^2}$$

- A. 0  
 B.  $5/3$   
 C.  $5/18$   
 D.  $50/8$   
 E.  $5/7$

9. Stan biked 44 km in  $3\frac{2}{3}$  hours. What was his average rate of speed? Use  $d = rt$ .

- A.  $16\frac{2}{3}$  kph  
 B. 15 kph  
 C. 12 kph  
 D.  $3\frac{2}{3}$  kph  
 E.  $\frac{2}{3}$  kph

10. What is the slope of a line that passes through Point A(2,4) and Point B(-2, -4)?

- A. 1  
 B. 2  
 C. 4  
 D. 6  
 E. 0

