

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

*Nevada High School Mathematics*  
*Practice Proficiency Exam*  
**Mini-Test 14**

1999  
(10 Questions)



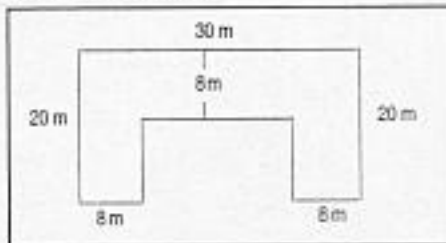
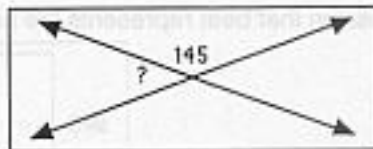
Practice Proficiency #14

Numbers and Operations

- The fuel gauge on a car shows that the tank is three-fourths full. When filled, the tank holds 15 gallons. You can compute how many gallons are left in the tank by multiplying 15 by three-fourths. Which of the following is the correct way to enter this into your calculator?
  - $15 + 3 \times 4 =$
  - $15 \times 3 / 4 =$
  - $15 \times 3 - 4 =$
  - $15 \times 4 / 3 =$
  - $15 + 4 \times 3 =$
  
- Which of the following fractions has the same value as 3.14?
  - $\frac{3}{14}$
  - $\frac{14}{3}$
  - $\frac{314}{10}$
  - $\frac{100}{314}$
  - $\frac{314}{100}$
  
- The Dukes have won three of their last five games. If this pattern continues and the season has twenty games, how many **more** games will the Dukes win by the end of the season?
  - 6
  - 9
  - 12
  - 15
  - 18

Measurement and Geometry

- Find the missing angle measure.
  - $145^\circ$
  - $90^\circ$
  - $55^\circ$
  - $45^\circ$
  - $35^\circ$
  
- Find the perimeter. (The figure is not drawn to scale.)
  - 104 m
  - 124 m
  - 432 m
  - 480 m
  - 600 m



6. A container holds 9 grams of sand. How many milligrams (mg) does it hold?
- A. 0.009 mg
  - B. 0.09 mg
  - C. 90 mg
  - D. 9,000 mg
  - E. 900,000 mg

**Data, Probability, and Statistics**

7. Assuming the pattern in the data below will continue, determine the number of people who would consume 15 glasses of water.

# of People	Glasses of Water
3	6
4	7
5	8
6	9
7	10

- A. 9
- B. 10
- C. 12
- D. 15
- E. 18

8. Jeri tabulated the number of customers coming into the flower shop for two weeks. What is the mode of her data?

Number of Customers - 2 weeks	
15, 18, 14, 22, 12, 14, 8	
21, 10, 15, 14, 11, 16, 9	

- A. 8
- B. 14
- C. 15
- D. 22
- E. There is no mode.

**Algebra and Functions**

9. Simplify:  $\sqrt{96}$

- A.  $2\sqrt{48}$
- B.  $6\sqrt{4}$
- C.  $6\sqrt{16}$
- D.  $4\sqrt{6}$
- E.  $16\sqrt{6}$

10. Identify the expression that best represents the perimeter of the inner rectangle below.

- A.  $2x^2 - 2$
- B.  $3x^2 + 6$
- C.  $3x - 2$
- D.  $6x + 6$
- E.  $6x - 4$

