

P9-4

M

NAME \_\_\_\_\_ MEET 4 PYTHAGOREAN DIVISION FEB. 5, 1998

GRADE 9  
30 MINUTES  
ANSWER COLUMN

DIRECTIONS: Place your answer to each question below in the answer column.

1)  $[a,b,c]$  is defined to equal  $\sqrt{ab} + \sqrt{bc} + \sqrt{ac}$ . If  $[1,4,x] = 14$ , find  $x$  in simplest form.

1) \_\_\_\_\_

2) If  $\frac{x}{y} = \frac{2}{7}$  and  $\frac{y}{z} = \frac{5}{3}$ , then  $\frac{x}{z} = ?$

2) \_\_\_\_\_

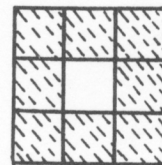
3) The area of circle X is  $12\pi$ . One-sixth of the area of circle Y equals one-half the area of circle X. Find the circumference of circle Y.

3) \_\_\_\_\_

4) When the Ross family went on vacation, Mrs. Ross drove  $\frac{3}{4}$  of the distance at 50 m.p.h.,  $\frac{1}{12}$  of the distance at 60 m.p.h. and the final 18 miles at 55 m.p.h. Mrs. Ross drove at 50 m.p.h. for \_\_\_\_\_ miles.

4) \_\_\_\_\_

5) In the figure at the right, all the outside squares of a  $3 \times 3$  square are shaded. One square is not shaded. If all the outside squares of an  $n \times n$  square are shaded, then the number of unshaded squares would be



a)  $3n-8$  b)  $n^2-4n+4$  c)  $n^2+4n-20$  d)  $n^2-2n$  e)  $4n^2-4n-23$

5) \_\_\_\_\_

6) Find three ordered pairs of positive integers  $(x,y)$  that satisfy the equation  $5x+3y = 41$ .

6) \_\_\_\_\_