



Mini Test 2

Attempts: _____ Correct: _____

DO YOUR FIGURING HERE.

11. Which of the following is a solution to the equation $x^2 - 25x = 0$?

A. -25
B. -5
C. 5
D. 25
E. 125

12. Craig ran $2\frac{2}{3}$ miles on Wednesday and $3\frac{1}{4}$ miles on Thursday. What was the total distance Craig ran during those two days, in miles?

F. $5\frac{3}{12}$

G. $5\frac{2}{7}$

H. $5\frac{3}{7}$

J. $5\frac{9}{12}$

K. $5\frac{11}{12}$

13. The ratio of the side lengths for a triangle is exactly 9:12:15. In another triangle, which is similar to the first, the shortest side is 18 inches long. To the nearest hundredth of an inch, what is the length of the longest side of the other triangle?

A. 18.25
B. 24.00
C. 25.50
D. 30.00
E. Cannot be determined from the given information

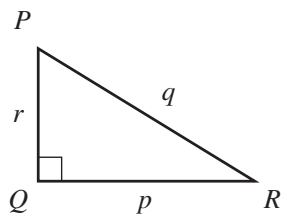
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DO YOUR FIGURING HERE.

14. The formula for the volume V of a sphere with radius r is $V = \frac{4}{3}\pi r^3$. If the radius of a spherical rubber ball is $2\frac{3}{4}$ inches, what is its volume, to the nearest cubic inch?

- F. 8
- G. 11
- H. 56
- J. 77
- K. 87

15. For the triangle $\triangle PQR$ shown below, what is $\sin R$?



- A. $\frac{r}{q}$
- B. $\frac{r}{p}$
- C. $\frac{p}{r}$
- D. $\frac{q}{r}$
- E. $\frac{p}{q}$

16. If x and y are positive integers such that the greatest common factor of x^2y^2 and xy^3 is 50, then which of the following could equal y ?

- F. 50
- G. 25
- H. 10
- J. 5
- K. 2



17. If x is a real number such that $x^3 = 729$,
then $x^2 + \sqrt{x} = ?$
- A. 738
B. 732
C. 90
D. 84
E. 12

DO YOUR FIGURING HERE.

18. A circle in the standard (x,y) coordinate plane is tangent to the x -axis at 4 and tangent to the y -axis at 4. Which of the following is an equation of the circle?
- F. $(x - 4)^2 + (y - 4)^2 = 16$
G. $(x + 4)^2 + (y + 4)^2 = 16$
H. $(x - 4)^2 + (y - 4)^2 = 4$
J. $x^2 + y^2 = 16$
K. $x^2 + y^2 = 4$

19. What expression must the center cell of the table below contain so that the sums of each row and each column are equivalent?

$4x$	$4x$	$2x$
x	?	$6x$
$5x$	$3x$	$2x$

- A. $2x$
B. $3x$
C. $4x$
D. $5x$
E. $6x$
20. At a plant, 160,000 tons of petrochemicals are required to produce 100,000 tons of plastic. How many tons of petrochemicals are required to produce 5,000 tons of plastic?
- F. 8,000
G. 10,000
H. 16,000
J. 80,000
K. 100,000

END OF MINI TEST TWO
STOP! DO NOT GO ON TO THE NEXT PAGE
UNTIL TOLD TO DO SO.