Math
Mark and Move

🎯 **Learning Targets**

1. Recognize when a question it taking too long to answer.

2. Summarize the Mark and Move strategy.

3. Use Mark and Move to increase pace during a practice test.

Instructions

The following exercise will help you identify questions you should mark and move on. Take 4 minutes to find the three questions that are the most difficult for you. Star them, make your best guess, and move on. For the purposes of this exercise, <u>don't</u> attempt to answer any of the other questions.

> **Mark and Move**
>
> When you Mark and Move, you star the question, mark your best guess, and move on to the next question. Never skip or leave a question blank. You should Mark and Move …
>
> … if the question is too challenging.
>
> … when you've spent too long on the question.
>
> … when you've spent too long on a section.

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

DO YOUR FIGURING HERE.

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

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 $\sin R$?
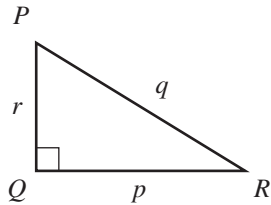
   A. $\dfrac{r}{q}$

   B. $\dfrac{r}{p}$

   C. $\dfrac{p}{r}$

   D. $\dfrac{q}{r}$

   E. $\dfrac{p}{q}$

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

GO ON TO THE NEXT PAGE.

DO YOUR FIGURING HERE.

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

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