Name: _____ Teacher: _____ Block: _____

Titan Learning Center
Mathematics SAT Prep
Week 4 Set A

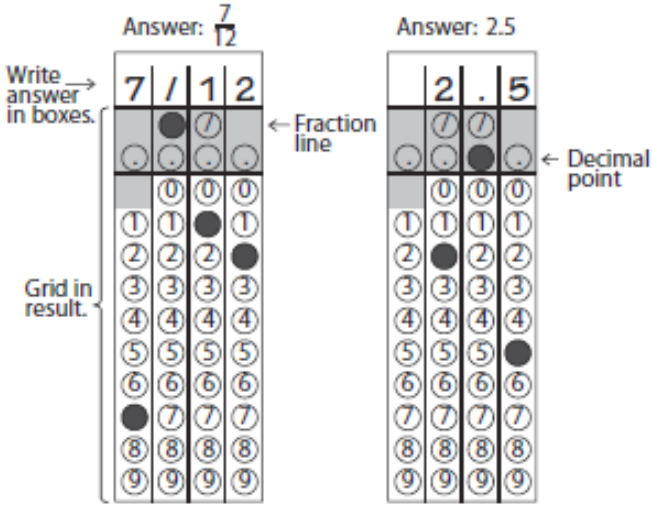
NO CALCULATOR – GRID YOUR ANSWER

Before beginning the practice problems for Week 4, please familiarize yourself with the instructions below. These directions will be printed in your test booklet. However, if you spend the time to read and understand these directions now, you can save yourself time on the day of the test!

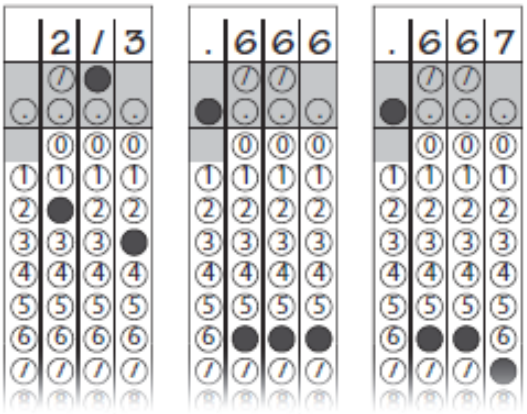
DIRECTIONS

For questions 16–20, solve the problem and enter your answer in the grid, as described below, on the answer sheet.

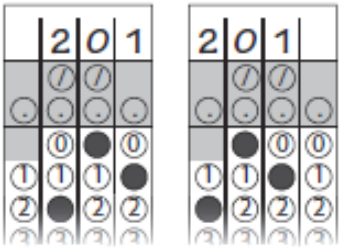
1. Although not required, it is suggested that you write your answer in the boxes at the top of the columns to help you fill in the circles accurately. You will receive credit only if the circles are filled in correctly.
2. Mark no more than one circle in any column.
3. No question has a negative answer.
4. Some problems may have more than one correct answer. In such cases, grid only one answer.
5. **Mixed numbers** such as $3\frac{1}{2}$ must be gridded as 3.5 or 7/2. (If  is entered into the grid, it will be interpreted as $\frac{31}{2}$, not $3\frac{1}{2}$.)
6. **Decimal answers:** If you obtain a decimal answer with more digits than the grid can accommodate, it may be either rounded or truncated, but it must fill the entire grid.



Acceptable ways to grid $\frac{2}{3}$ are:



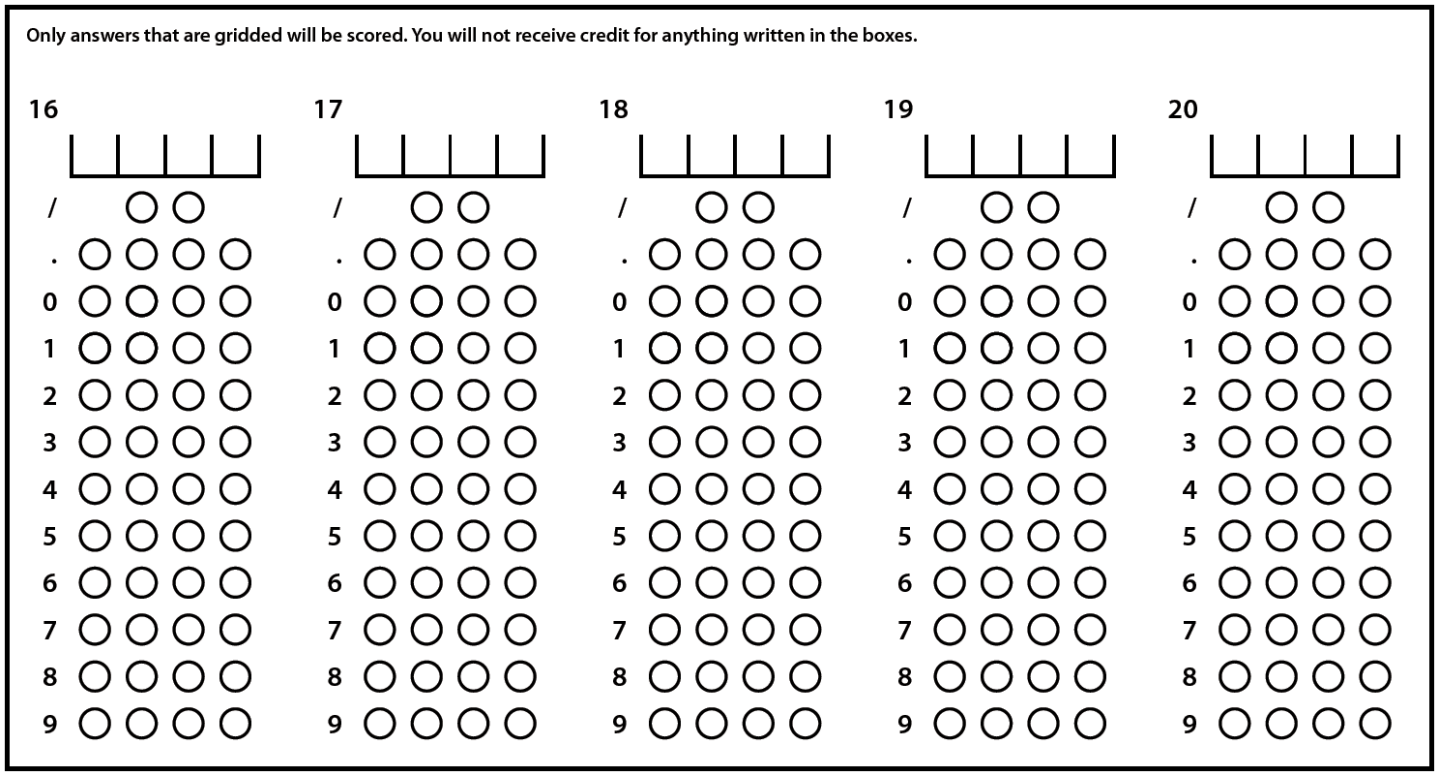
Answer: 201 – either position is correct



NOTE: You may start your answers in any column, space permitting. Columns you don't need to use should be left blank.

After completing the five practice problems on the following page, practice entering your answers on the grids below.

Week 4: #16-20



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Week 4 Set A

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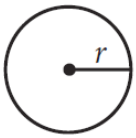
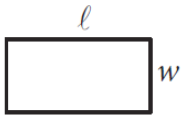
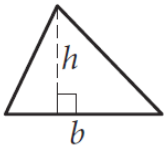
REFERENCE *(This reference sheet is given on the SAT!)*



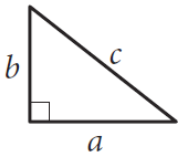
$A = \pi r^2$
$C = 2\pi r$



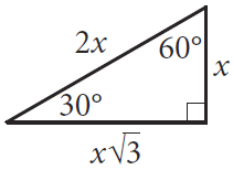
$A = \ell w$

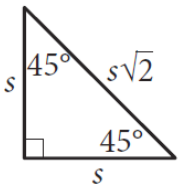


$A = \frac{1}{2}bh$

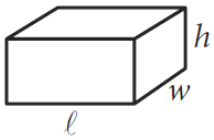


$c^2 = a^2 + b^2$

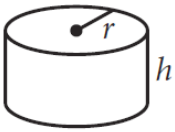




Special Right Triangles

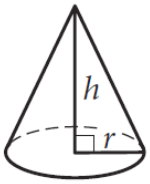


$V = \ell wh$

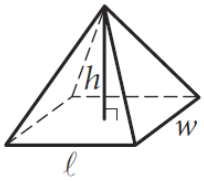


$V = \pi r^2 h$

$V = \frac{4}{3}\pi r^3$



$V = \frac{1}{3}\pi r^2 h$



$V = \frac{1}{3}\ell wh$

The number of degrees of arc in a circle is 360.
The number of radians of arc in a circle is 2π.
The sum of the measures in degrees of the angles of a triangle is 180.

16

If $t > 0$ and $t^2 - 4 = 0$, what is the value of t ?

17

$$x + y = -9$$
$$x + 2y = -25$$

According to the system of equations above, what is the value of x ?

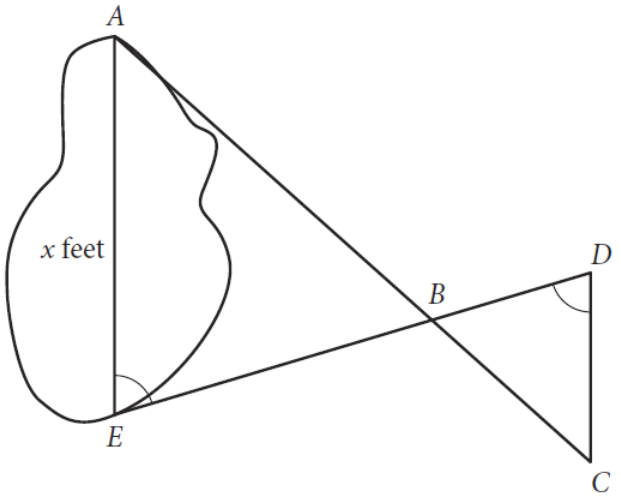
18

In a right triangle, one angle measures $x°$, where $\sin x° = \frac{4}{5}$. What is $\cos(90° - x°)$?

19

If $a = 5\sqrt{2}$ and $2a = \sqrt{2x}$, what is the value of x ?

20



A summer camp counselor wants to find a length, x, in feet, across a lake as represented in the sketch above. The lengths represented by AB, EB, BD, and CD on the sketch were determined to be 1800 feet, 1400 feet, 700 feet, and 800 feet, respectively. Segments AC and DE intersect at B, and $\angle AEB$ and $\angle CDB$ have the same measure. What is the value of x ?

TLC Stamp