Grid-In Questions

The SAT grid-in question type is very similar to the familiar multiple-choice question except that you will now solve the problem and enter your answer by carefully marking the circles on a special grid. You will not be selecting from a group of possible answers.

Since you will not be selecting from a group of possible answers, you should be extra careful in checking and double-checking your answer. Your calculator can be useful in checking answers. Also, keep in mind that answers to grid-in questions are given either full credit or no credit. There is no partial credit. No points are deducted for incorrect answers in this section. That is, there is no penalty for guessing or attempting a grid-in, so at least take a guess.

Ability Tested

The grid-in questions test your ability to solve mathematical problems involving arithmetic, algebra I and II, geometry, data interpretation, basic statistics and probability and word problems by using problem-solving insight, logic, and application of basic skills.

Basic Skills Necessary

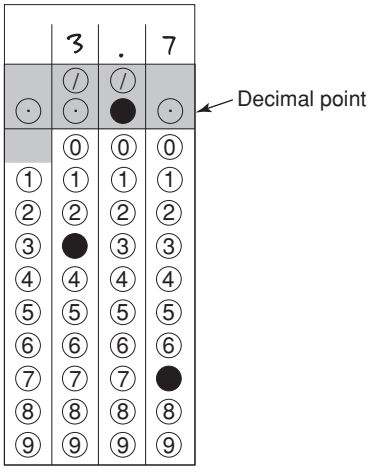
The basic skills necessary to do well on this question type include high school algebra I and II and intuitive or informal geometry. No calculus is necessary. Skills in arithmetic and basic algebra I and II, along with some logical insight into problem-solving situations, are also necessary to do well on this question type. Understanding the rules and procedures for gridding in answers is important.

Before you begin working grid-in questions, it is important that you become familiar with the grid-in rules and procedures and learn to grid accurately. Let's start explaining the rules and procedures by analyzing the directions.

Directions with Analysis

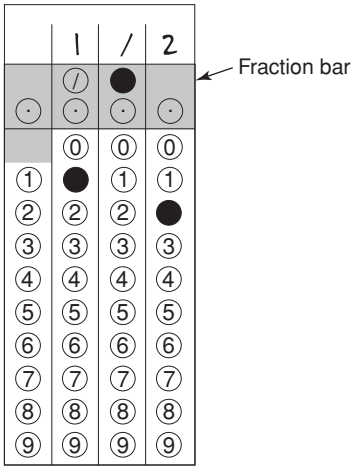
The following questions require you to solve the problem and enter your answer by carefully marking the circles on the special grid. Examples of the appropriate way to mark the grid follow. (Comments in parentheses have been added to help you understand how to grid properly.)

Answer: 3.7



(Notice that the decimal point is located in the shaded row, just above the numbers. Also notice that the answer has been written in above the gridding. You should always write in your answer, but the filled-in circles are most important because they are the ones scored.)

Answer: $\frac{1}{2}$

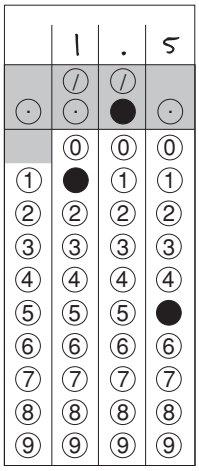


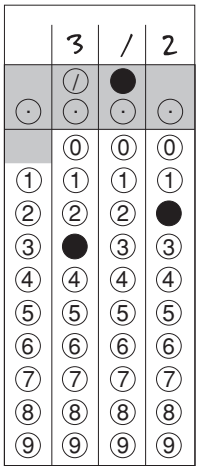
(Notice that the slash mark (/) indicates a fraction bar. This fraction bar is located in the shaded row and just above the decimal point in the two middle columns. Obviously, a fraction bar cannot be in the first or last column.)

Answer: $1\frac{1}{2}$

Do not grid in mixed numbers in the form of mixed numbers. **Always** change mixed numbers to improper fractions or decimals.

Change to 1.5 or **Change to $\frac{3}{2}$**

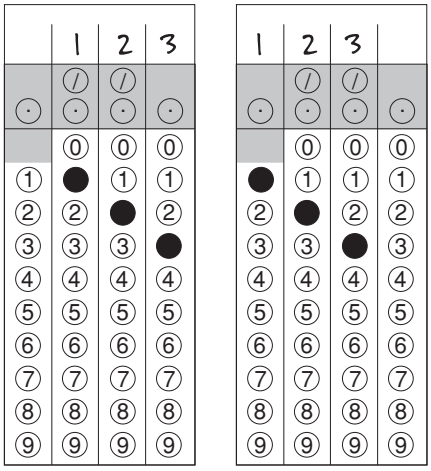




(Either an improper fraction or a decimal is acceptable. Never grid in a mixed number because it will always be misread. For example, $1\frac{1}{2}$ will be read by the computer doing the scoring as $\frac{11}{2}$.)

Answer: 123

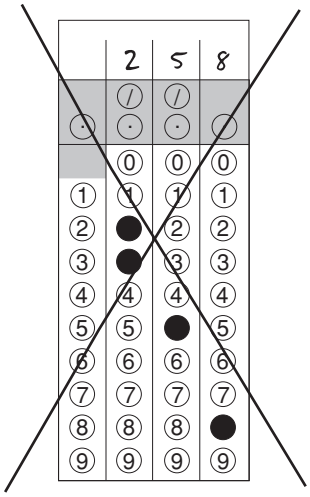
Space permitting, answers may start in any column. Each grid-answer below is correct.



(You should try to grid your answers from right to left, learning to be consistent as you practice. But space permitting, you may start in any column.)

Note: Circles must be filled in correctly to receive credit. Mark only one circle in each column. No credit will be given if more than one circle in a column is marked. Example:

Answer: 258 (no credit)

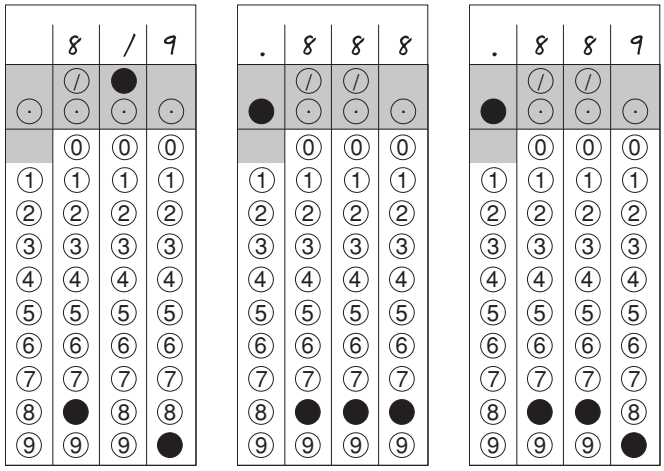


(Filling in more than one circle in a column is equivalent to selecting more than one answer in a multiple-choice question. This type of answer fill-in will never receive any credit. Be careful to avoid this mistake.)

Answer: $\frac{8}{9}$

Accuracy of decimals: Always enter the most accurate decimal value that the grid will accommodate. For example: An answer such as .8888 . . . can be gridded as .888 or .889. Gridding this value as .8, .88, or .89 is considered inaccurate and therefore not acceptable. The acceptable grid-ins of $\frac{8}{9}$ are

$\frac{8}{9}$ **.888** **.889**



(Review "accuracy of decimals" a second time. Notice that you must be as accurate as the grid allows.)

Be sure to write your answers in the boxes at the top of the circles before doing your gridding. Although writing out the answers above the columns is not required, it is very important to ensure accuracy. Even though some problems may have more than one correct answer, grid only one answer. Grid-in questions contain no negative answers.

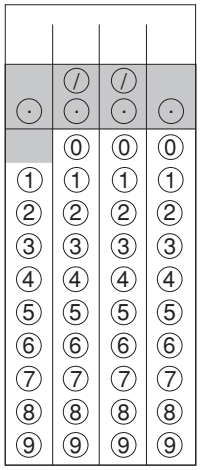
(Fractions can be reduced to lowest terms, but it is not required as long as they will fit in the grid. You are not required to grid a zero before a fraction. For example, either .2 or 0.2 is acceptable. If your answer is zero, you are required only to grid a zero in one column. Important: If you decide to change an answer, be sure to erase the old gridded answer completely.)

Practice Grid-Ins

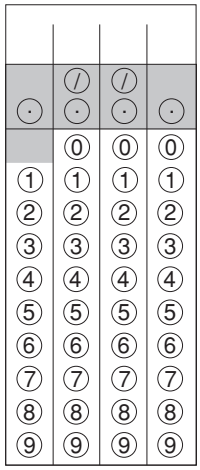
The following practice exercises will help you become familiar with the gridding process. Properly filled in grids are given following each exercise. Hand write and grid in the answers given.

Exercise 1

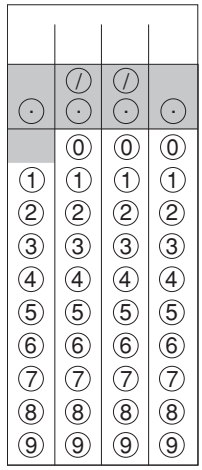
Answer: 4.5



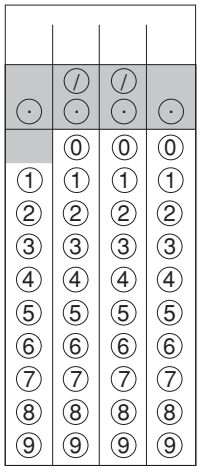
Answer: .7



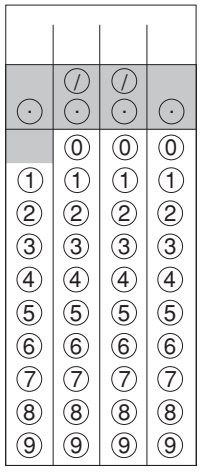
Answer: 22.7



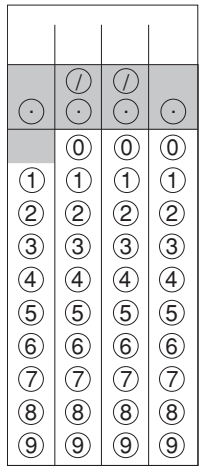
Answer: $\frac{1}{3}$



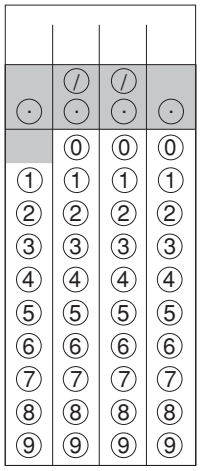
Answer: $\frac{4}{7}$



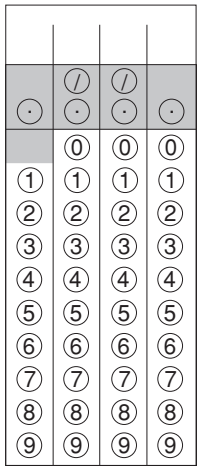
Answer: $\frac{9}{2}$



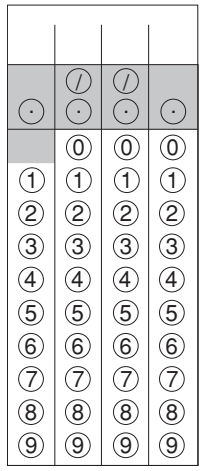
Answer: $3\frac{1}{4}$



Answer: $4\frac{1}{2}$

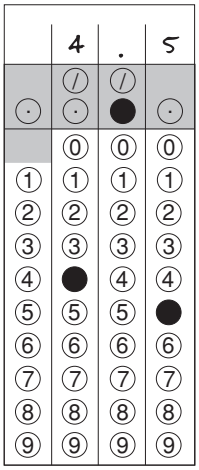


Answer: $9\frac{1}{7}$



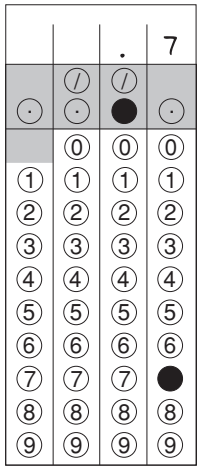
Answers to Exercise 1

Answer: 4.5



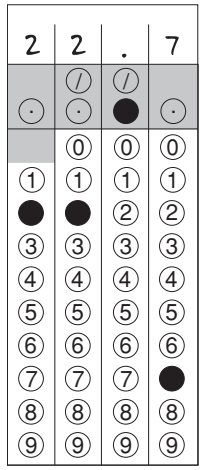
or $\frac{9}{2}$

Answer: .7

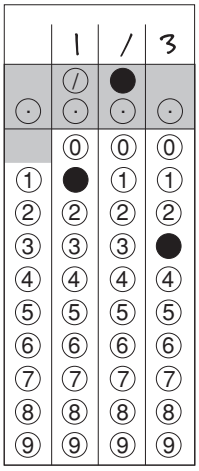


or $\frac{7}{10}$

Answer: 22.7

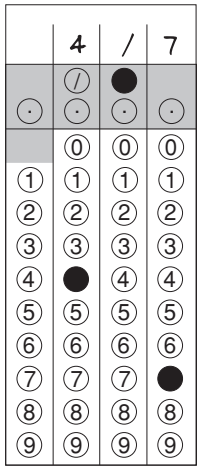


Answer: $\frac{1}{3}$



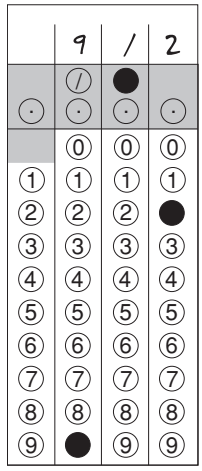
or .333

Answer: $\frac{4}{7}$



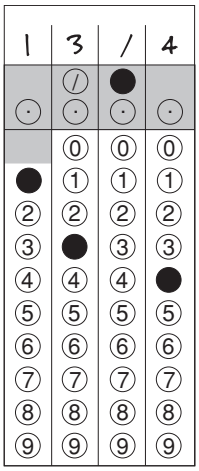
or .571

Answer: $\frac{9}{2}$



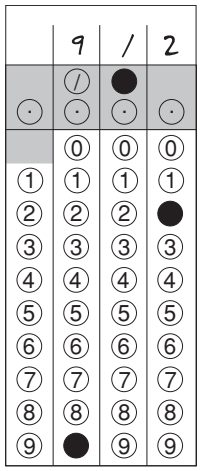
or 4.5

Answer: $3\frac{1}{4}$



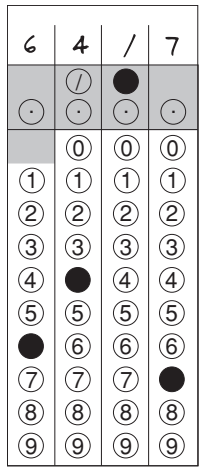
$3\frac{1}{4}$ must be changed to $\frac{13}{4}$ or 3.25

Answer: $4\frac{1}{2}$



$4\frac{1}{2}$ must be changed to $\frac{9}{2}$ or 4.5

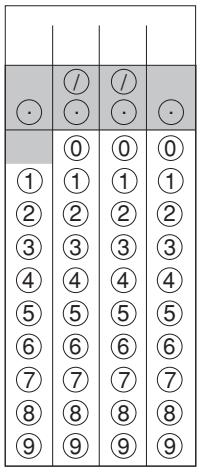
Answer: $9\frac{1}{7}$



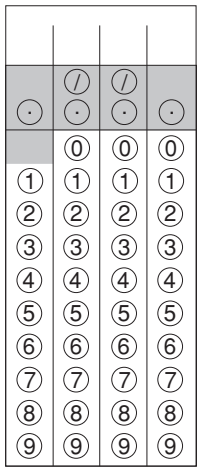
$9\frac{1}{7}$ must be changed to $\frac{64}{7}$ or 9.14

Exercise 2

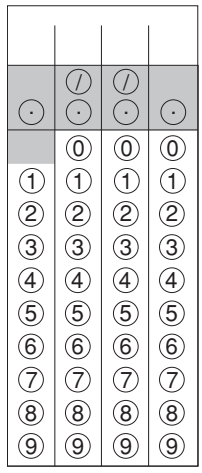
Answer: 0



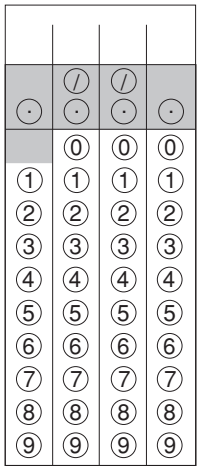
Answer: 39



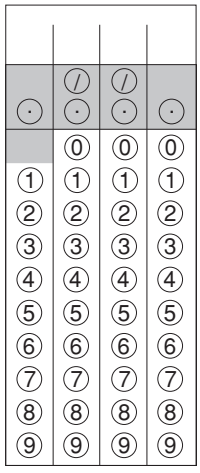
Answer: 1,542



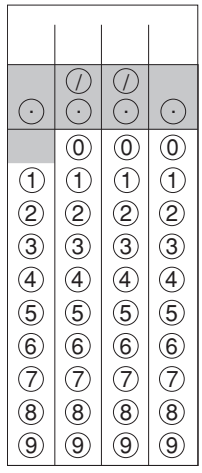
Answer: $7\frac{1}{3}$



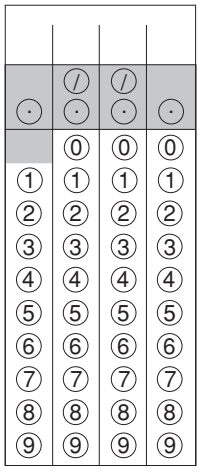
Answer: 1



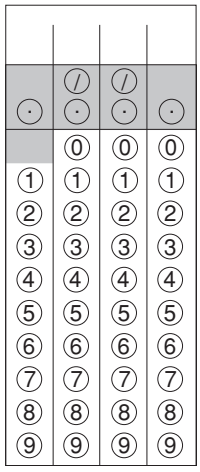
Answer: 685



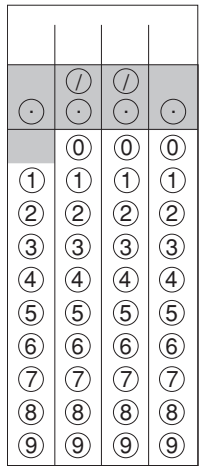
Answer: .7272



Answer: .666 . . .

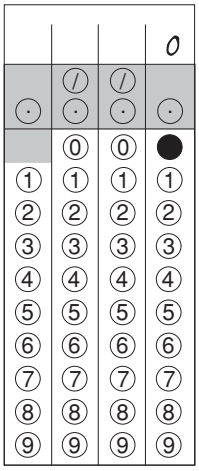


Answer: .222 . . .

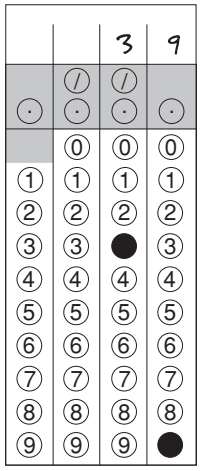


Answers to Exercise 2

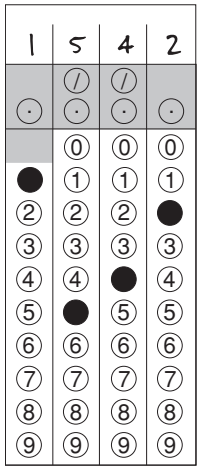
Answer: 0



Answer: 39

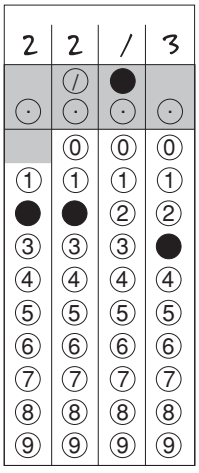


Answer: 1,542



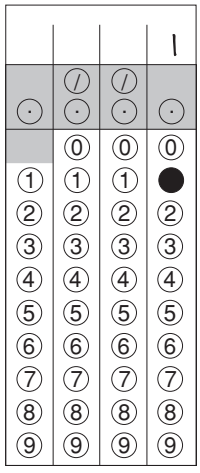
Disregard the comma (,)

Answer: $7\frac{1}{3}$

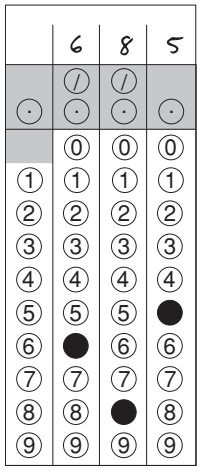


$7\frac{1}{3}$ must be changed to $\frac{22}{3}$ or 7.33

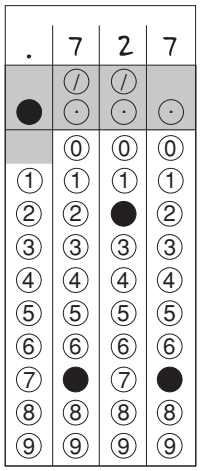
Answer: 1



Answer: 685

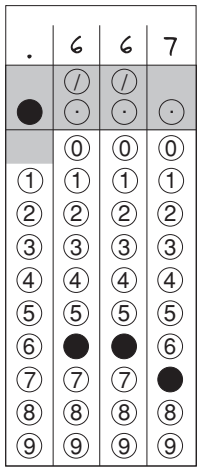


Answer: .7272



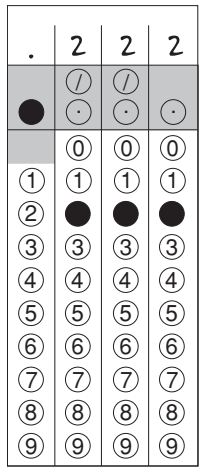
.72 or .73 will **not** be correct

Answer: .666 . . .



.666 will also be correct or $\frac{2}{3}$ (.66, .67, .7, or .6 will **not** be correct)

Answer: .222 . . .



$\frac{2}{9}$ will also be correct (.2 or .22 will **not** be correct)

A Summary of Strategies for Grid-In Questions

- Realize that you receive no penalty for guessing.
- Know the grid-in rules and procedures.
- Change mixed numbers to improper fractions or decimals.
- Understand that fractions and decimal forms are acceptable.
- Write in your answer at the top, and remember that the grid-in part is scored.
- Grid accurately and properly.
- Be sure to answer the question being asked.
- Grid in only one answer, even if more than one is possible.
- Know that fractions do not have to be reduced if they fit.
- Follow directions carefully.
- Change your answer to fit the grid.
- Use your calculator.
- Draw figures.
- Mark in diagrams.
- Make sure that your answer is reasonable.
- Jot down scratch work in the test booklet.
- Check your answers.
- Don't get stuck on any one problem!