

Calculator Exercise

This exercise is designed to illustrate when and when not to use your calculator. Make sure that the calculator you bring to the test is one with which you are thoroughly familiar. You may bring any of the following types of calculators: graphing, four-function, or scientific. Although no item requires the use of a calculator, a calculator may be helpful to answer some items. The calculator may be useful for any item that involves complex arithmetic computations, but it cannot take the place of understanding how to set up a mathematical item. The degree to which you can use your calculator will depend on its features. Answers are on page 457.

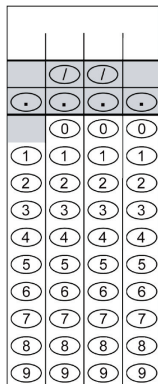
DIRECTIONS: Label each of the items that follow according to one of the following categories.

Category 1: A calculator would be very useful (saves valuable test time).

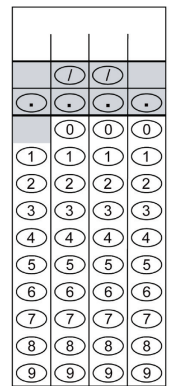
Category 2: A calculator might or might not be useful.

Category 3: A calculator would be counterproductive (wastes valuable test time).

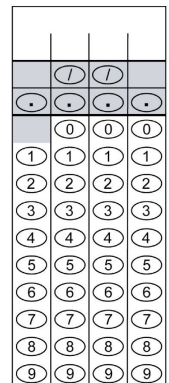
1. If $2m + 4n$ is equal to 175 percent of $4n$, what is the value of $\frac{m}{n}$?

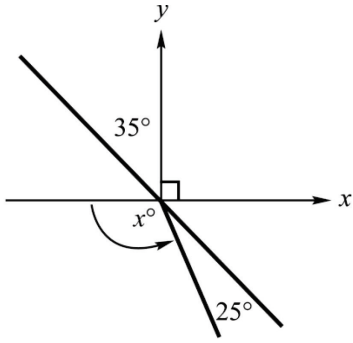


2. A company distributes samplers that include 1 jar of jam and 2 jars of jelly. If the company makes 4 different jams and 4 different jellies, how many different samplers are possible?



3. Lyle played in 5 basketball games and scored at least 1 point in each game. If Lyle scored an average of 8 points for the 5 games, what is the greatest possible number of points he could have scored in any one game?





NOTE: Figure not drawn to scale.

4. In the figure above, what is the value of x ?

	/	/	
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

5. Let the function $g(x)$ be defined by $g(x) = 12 + \frac{x^2}{9}$. If $g(3n) = 7n$, what is one possible value of n ?

	/	/	
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9