

Name: _____ Bell: _____ (Keep this paper for reference in your math binder.)

What is R.A.C.E.?

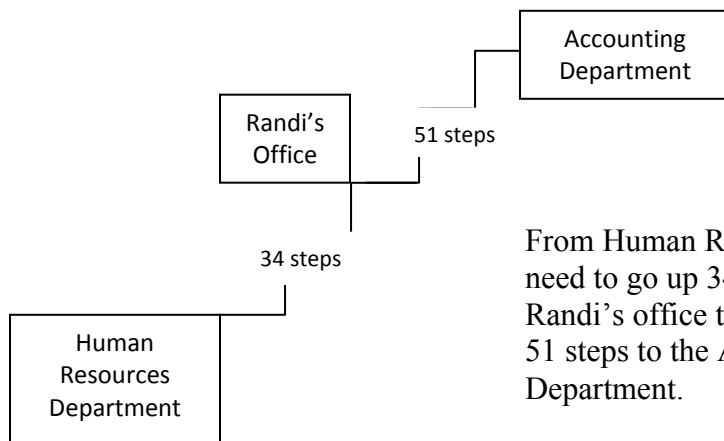
When you write your answers to written response questions on a test, it is important you use complete sentences, answer all parts of the question and give details that support your response. R.A.C.E. is a formula for answering these types of questions that makes sure you include all these parts.

Example of a Written Response Question for a short answer/extended response problem where a picture can be drawn to explain the answer:

Randi takes the stairs at work whenever possible instead of the elevator. She must climb up 51 steps from her office to get to the accounting department. The human resources department is 34 steps below her office. How many steps are there between human resources and accounting?

Sample Answer:

Between human resources and accounting there are 85 steps. } This is the **Restate** and **Answer** part



From Human Resources you would need to go up 34 steps to get to Randi's office then go up another 51 steps to the Accounting Department. } This is the **Cite** part

or mathematically:

_____ } This is the **Example** part.
For math draw a picture and label.

$$\left\{ \begin{array}{l} K \quad C \quad C \\ 51 - (-34) \\ 51 + 34 = 85 \end{array} \right.$$

Example of a Written Response Question for a short answer/extended response problem where work needs to be shown to explain the answer:

During a sale, the price of all televisions in a store is being reduced by 20%. Abe is interested in a television with an original cost of \$575.

Two weeks later, the sale price of this television is reduced by an additional 5%. Abe thinks he can now get the television for 25% off the original price.

In your **Answer Document**, describe how the sale price with the additional 5% reduction is different than a single reduction of 25%. Use mathematics to justify your answer.

Sample Answer:

The sale price of the television with a 25% reduction would be less than the television with a 20% reduction plus an additional 5% reduction. } This is the **Restate** and **Answer** part

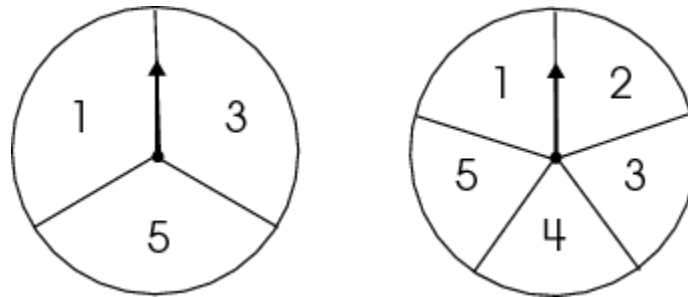
The sale price of the television would be \$431.25 after a 25% discount and \$437 after a discount of 20% plus an additional 5% discount. } This is the **Cite** part

Sale price of the television after the discount:

$575 - (0.25 \cdot 575) = 431.25$ $575 - 143.75$	25% Discount	} This is the Example part. For math show and label your work!
$575 - (0.20 \cdot 575) = 460$ $575 - 115$	20% Discount	
$460 - (0.05 \cdot 460) = 437$ $460 - 23$	Additional 5% Discount	

Example of a Written Response Question for a short answer/extended response problem where a diagram can be drawn to explain the answer.

Abby and Brittany are playing a board game. They determine how many spaces to move by spinning two spinners and adding together the numbers on which the spinners land.



Each player has only one more turn. Abby needs to move exactly 6 spaces to win, and Brittany needs to move exactly 8 spaces to win.

In your **Answer Document**, determine which girl has the greater probability of winning. Justify your answer by finding the probability for each girl.

Sample Answer:

Abby's probability of winning, $\frac{3}{15}$ is greater than Brittany's probability of winning, $\frac{2}{15}$. } This is the **Restate and Answer** part

- 1 + 1 = 2
- 1 + 2 = 3
- 1 + 3 = 4
- 1 + 4 = 5
- 1 + 5 = 6
- 3 + 1 = 4
- 3 + 2 = 5
- 3 + 3 = 6
- 3 + 4 = 7
- 3 + 5 = 8
- 5 + 1 = 6
- 5 + 2 = 7
- 5 + 3 = 8
- 5 + 4 = 9
- 5 + 5 = 10

Abby wins

Brittany wins

There are fifteen different outcomes. There are three ways Abby can move exactly six spaces, so her probability of winning is $\frac{3}{15}$.

There are two ways that Brittany can move exactly eight spaces, so her probability of winning is $\frac{2}{15}$.

} This is the **Cite** part

This is the **Example** part.
For math make a diagram and label.

Practice:

Is it possible to add two values and get a lesser value? Explain and show an example. Your answer should be in RACE format.

R + A:

Cite an example:

Example:

Practice:

The last 4 entries in Mr. Benedict's checkbook ledger show both deposits and payments. Mr. Benedict wrote down the following amounts: \$125, -\$38, -\$84 and \$157. What is the mean (average) dollar amount for these entries: Your answer should be in RACE format.
