

MATH

Long-term Memory Review

PROFICIENCY PRACTICE: MONDAY REVIEW

- 1) A _____ is an arrangement of a set of objects in which order IS important.
- 2) A _____ is an arrangement of a set of objects in which order IS NOT important.
- 3) How do you read ${}_5P_3$? _____
- 4) How do you read ${}_5C_3$ or $\binom{5}{3}$? _____
- 5) Assume a school has three people interested in serving on a two-member panel that includes a chairperson and a vice-chairperson. Clearly, one person will be left off the panel. To decide who resides on the panel, the student body of the school is asked to vote. If the names of the three people interested in serving are *Ron*, *Latisha*, and *Vince*, then list the different ways the election for the panel could occur?

First Way		Third Way		Fifth Way	
<u>Latisha</u>	<u>Ron</u>	_____	_____	_____	_____
Chairperson	Vice-Chair	Chairperson	Vice-Chair	Chairperson	Vice-Chair

Second Way		Fourth Way		Sixth Way	
<u>Ron</u>	<u>Latisha</u>	<u>Vince</u>	<u>Ron</u>	_____	_____
Chairperson	Vice-Chair	Chairperson	Vice-Chair	Chairperson	Vice-Chair

- a) In the above problem, is order important? (why or why not) _____
- _____
- _____

- 6) Assume a school has three people interested in serving on a two-member panel. Clearly, one person will be left off the panel. To decide who resides on the panel, the student body of the school is asked to vote. If the names of the three people interested in serving are *Ron*, *Latisha*, and *Vince* then list the different ways the election for the panel could occur?

First Way		Second Way		Third Way	
<u>Latisha</u>	<u>Ron</u>	_____	_____	_____	_____
Member	Member	Member	Member	Member	Member

- a) In the above problem, is order important? (why or why not) _____
- _____
- _____

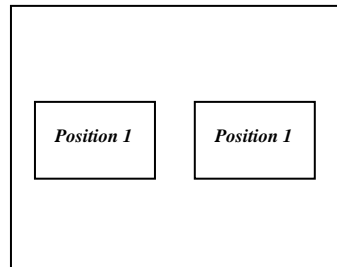
MATH

Long-term Memory Review

PROFICIENCY PRACTICE: TUESDAY REVIEW

- 1) A _____ is an arrangement of a set of objects in which order IS important.
- 2) A _____ is an arrangement of a set of objects in which order IS NOT important.
- 3) How do you read ${}_5P_3$? _____
- 4) How do you read ${}_5C_3$ or $\binom{5}{3}$? _____
- 5) **Counting Principle:** Miranda has a gift-wrapping business. She has 15 types of paper, 10 types of ribbon, and 12 different bows. How many different arrangements can be made for wrapping a gift?
 # of paper types \times # of ribbon types \times # of bow types = # of different arrangements

- 6) Assume you have three different colored blocks (**R** – Red, **G** – Green, **B** – Blue) and you want to organize two of them on a table (one adjacent to the next). Using the table below, show the sample space for all the different arrangements. (*HINT: There are too many boxes in the sample space below*)



<i>Position 1</i>	R										
<i>Position 2</i>	G										
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>

- 7) How many different arrangements did you produce? _____
- 8) Go back to the sample space and cross out the columns that have the same letters as a previous column (*eg column **RG** and **GR** are the same*). How many columns did you cross out? _____
- 9) How many columns were not crossed out? _____
- 10) If two coins are tossed and a die is rolled, which expression below best describes the total number of outcomes possible?
 - a) $2+6$
 - b) $2+2+6$
 - c) $2 \times 2 \times 6$
 - d) $2 \times (2+6)$

MATH

Long-term Memory Review

PROFICIENCY PRACTICE: THURSDAY REVIEW

- 1) A _____ is an arrangement of a set of objects in which order IS important.
- 2) A _____ is an arrangement of a set of objects in which order IS NOT important.
- 3) How do you read ${}_5P_3$? _____
- 4) How do you read ${}_5C_3$ or $\binom{5}{3}$? _____
- 5) How many arrangements will ${}_5C_3$ produce?
a) 2 arrangements b) 10 arrangements c) 15 arrangements d) 60 arrangements
- 6) Assume a school has three people interested in serving on a two-member panel that includes a chairman and a vice-chairman. Clearly, one person will be left off the panel. To decide who resides on the panel the student body of the school is asked to vote. If the names of the three people interested in serving are *Ron*, *Latisha*, and *Vince* then list the different ways the election for the panel could occur?

First Way		Second Way		Third Way	
<u>Latisha</u>	<u>Ron</u>	_____	_____	_____	_____
Chairperson	Vice-Chair	Chairperson	Vice-Chair	Chairperson	Vice-Chair
Fourth Way		Fifth Way		Sixth Way	
<u>Ron</u>	<u>Latisha</u>	<u>Vince</u>	<u>Ron</u>	_____	_____
Chairperson	Vice-Chair	Chairperson	Vice-Chair	Chairperson	Vice-Chair

- a) In the above problem, is order important? (Why or why not) _____

- 7) Five people – A, W, X, Y, and Z – go to a movie and sit in adjacent seats. If A sits in the aisle seat, then how many possible arrangements are there for the other four people?
a) 24 arrangements b) 20 arrangements c) 10 arrangements d) 9 arrangements
- 8) A jar contains 15 M&M's each with a different letter marked on the candy. How many different handfuls of five M&M's can you pull from the jar?

