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## Permutations and Combinations Assignment

Find the value of the factorial in each case.

1. $4!=$ $\qquad$
2. 10! = $\qquad$
3. 0 ! = $\qquad$

Find the permutation in each case.

1. ${ }_{n}^{n} P=$ $\qquad$
2. ${ }_{1}^{n} P=$ $\qquad$
3. ${ }_{5}^{10} P=$ $\qquad$
4. ${ }_{10}^{10} P=$ $\qquad$
5. ${ }_{2}^{20} P=$ $\qquad$

Find the combination in each case.

1. ${ }_{n}^{n} C=$ $\qquad$
2. ${ }_{1}^{n} C=$ $\qquad$
3. ${ }_{5}^{10} C=$ $\qquad$
4. ${ }_{10}^{10} C=$ $\qquad$
5. ${ }_{2}^{20} C=$ $\qquad$
$\qquad$
$\qquad$ Date: $\qquad$

## Permutations and Combinations Assignment

How many words can be made from the letters $\mathbf{c , r}, \mathrm{d}, \mathrm{e}, \mathrm{u}$ if each letter is used only once in each word?

In how many ways can these balls be arranged in the box shown below?


In the school football team, there are 12 players. If the coach needs $\mathbf{6}$ players to start for the futsal match, in how many different ways can the coach pick these 6 players out of $\mathbf{1 2 ?}$

