Name _____

Factorials

Date _____ Period _____

For all $n \geq 0$, the factorial symbol $n!$ is defined as

$$0! = 1 \qquad 1! = 1$$

$$n! = n(n-1)(n-2)\cdot\ldots\cdot 3\cdot 2\cdot 1 \quad \text{for } n \geq 2$$

$5!$ $7!$ $9!$

n	0	1	2	3	4	5	6
$n!$							

Evaluate the following factorial expressions

$\dfrac{7!}{5!}$ $\dfrac{3!}{6!}$

$\dfrac{7!}{5!}$ $\dfrac{12!}{10!}$

Evaluate the following factorial expressions

$$\frac{3!\cdot 7!}{4!}$$

$$\frac{4!\cdot 6!}{8!}$$

Evaluate the following factorial expressions

$$\frac{2!\cdot 8!}{5!}$$

$$\frac{9!}{3!\cdot 8!}$$