Math 8   Date:_____

Multiply the following pairs of numbers:

(+4) x (+2) = **+8**   (-6) x (+2) = **-12**   (-2) x (-3) = **+6**

(+3) x (-5) = **-15**   (+7) x (+1) = **+7**   (+8) x (-3) = **-24**

(-4) x (-3) = **+12**   (+0) x (+2) = **0**   (-3) x (-3) = **+9**

What do you notice about the products of each question? We can use your observations
to make a *sign rule*. **✱ multiplying has a sign rule, but**

Sign Rule:	**adding and subtracting do not**
(+) x (+) = **⊕**	(+) x (-) = **⊖**
(-) x (-) = **⊕**	(-) x (+) = **⊖**

✱ if there is an even # of ⊖ multiplied, then the answer is ⊕

What happens if there are more than 2 numbers being multiplied together?

(-4) x (-3) x (+2) x (-1) = **-24**   (-2) x (-3) x (-4) x (-1) = **+24**

(-1) x (-1) x (-1) x (-1) x (-1) x (-1) x (-1) x (-1) x (-1) = **-1**

(-1) x (-1) x (-1) x (-1) x (-1) x (-1) = +1
     +   **+**   **+**

Model each of the following situations with an integer multiplication: **"time is always positive"**

1. Jerry can climb stairs at a rate of 6 steps per second. If it takes him 9 seconds
    to climb a flight of stairs, how many steps did he go up?

    (+6) x (+9) =   +54

2. Every month, Joey spends $70 on his cell phone plan. Represent this over the
    course of a year using integer multiplication.

    (+12) x (-70) = -840