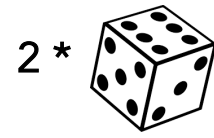


Does  $X + X = 2X$ ?



1. Write out all 36 possible outcomes for two die rolls.

Let  $X$  = value of a single die roll. Let  $X + X$  = sum of two die rolls.

2. Create a probability distribution for the sum of  $X + X$ .

Value	2	3	4	5	6	7	8	9	10	11	12
Probability											

3. Use the Discrete Random Variables applet at [www.stapplet.com](http://www.stapplet.com) or your calculator.

Mean ( $X + X$ ) =                      Interpret:

SD ( $X + X$ ) =                      Interpret:

Let  $X$  = value of a single die roll. Let  $2X$  = doubling a single die roll.

4. Create a probability distribution for  $2X$ .

Value						
Probability						

Mean ( $2X$ ) =                      Interpret:

SD ( $2X$ ) =                      Interpret:

5. Does  $X + X = 2X$ ? Explain.

6. If you were told you would win the number of dollars of your score, would you rather get the sum of rolling two dice, or doubling a single die roll? Explain.