AP STATISTICS: Worksheet Chapter 8 **Name** _____

THE TWELVE DAYS OF CHRISTMAS

On the first day of Christmas, my true love gave to me: A Partridge in a Pear Tree.

If the probability of getting a partridge is 0.58 and the probability of getting a pear tree is 0.76, and these are independent events, find the probability of getting a partridge and a pear tree.

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On the second day of Christmas, my true love gave to me: Two Turtle Doves.

If the probability of a female turtle dove is 0.53, find the probability of at least one female turtle dove in the pair.

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On the third day of Christmas, my true love gave to me: Three French Hens.

If the probability of a hen truly having French citizenship is 0.81, find the probability of exactly two French hens out of the three.

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On the fourth day of Christmas, my true love gave to me: Four Calling Birds.

If the probability of a bird actually calling is 0.63, find the probability of finding the first calling bird on the third attempt.

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On the fifth day of Christmas, my true love gave to me: Five Golden Rings.

If the probability of getting a real golden ring is 0.72, find the probability of getting three or fewer golden rings in the five.

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On the sixth day of Christmas, my true love gave to me: Six Geese A-laying.

If the probability of an authentic laying goose is 0.83, find the probability of getting a laying goose on or before the fourth trial.

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On the seventh day of Christmas, my true love gave to me: Seven Swans A-swimming.

If the probability of a swan drowning is 0.23, find the probability of exactly 4 out of the 7 swans drowning.

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On the eighth day of Christmas, my true love gave to me: Eight Maids A-milking.

If the probability of getting a sour maid a-milking is 0.38, find the expected number of sour maids a-milking in the group of 8.

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On the ninth day of Christmas, my true love gave to me: Nine Ladies Dancing.

If the probability of a dancing lady accepting an invitation to dance is 0.18, find the expected number of ladies you would have to ask before one accepts.

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On the tenth day of Christmas, my true love gave to me: Ten Lords A-leaping.

If the probability of a lame leaping lord is 0.24, find the probability of getting your first lame leaping lord after the sixth attempt.

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On the eleventh day of Christmas, my true love gave to me: Eleven Pipers Piping.

If the probability of frozen pipes is 0.63, find the probability of 8 or more frozen pipes out of the eleven.

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On the twelfth day of Christmas, my true love gave to me: Twelve Drummers Drumming.

If the probability of a dribbling drummer is 0.48, find the standard deviation of the dribbling drummers drumming for twelve drummers drumming.

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If you round all answers to three significant digits, the sum of the twelve answers should be 14.0479.