

(a) **Fill in the blank space with words that relate to the symbol on the left side of the sentence.**

$A = B$ means A is _____ B.

$A < B$ means A is _____ B.

$A > B$ means A is _____ B.

$A \leq B$ means A is _____ B.

$A \geq B$ means A is _____ B.

(b) Think of and look up words that can be used to represent each symbol.

Words that imply " $<$ "	Words that imply " $>$ "
Words that imply " \leq "	Words that imply " \geq "

(c) We are doing this activity to help us prepare for binomial probability distributions. These questions will use x as our random variable so we will use x to write the correct probability notation.

Example: If 15 people were surveyed, what is the probability that **at most 12** people said they loved sushi?

This problem can be rewritten as $P(x \leq 12)$.

The numbers that are contained in this example are:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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(d) Rewrite the following using the example above as a guide, writing out the probability using inequality notation, and also shading the numbers that are included in the inequality.

1) If 15 people were surveyed, what is the probability that at least 13 people would want to change phone plans?															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

2) If 15 dogs were surveyed, what is the probability that **no more than 9** would be wearing collars?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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3) If 15 teachers were surveyed, what is the probability that **fewer than 7** of them drink coffee?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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4) If 15 patients were surveyed, what is the probability that **no less than 10** of them had hepatitis?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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5) If 15 people were surveyed, what is the probability **11 or more** people laughed at the joke?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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6) If 15 police officers were surveyed, what is the probability that **more than 3** of them prefer motorcycles?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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7) If 15 people were surveyed, what is the probability that **exactly 4** of them are left-handed?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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8) If 15 students were surveyed, what is the probability that **none** of them could find a parking spot?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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9) If 15 babies were surveyed, what is the probability that **at least 6** of them had spoken their first word?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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10) If 15 restaurants were surveyed, what is the probability that **at most 5** of them were up to code?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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