

**#1 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Catherine is rolling a fair die. What is the probability that she does not roll a 6 before her fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#1 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Catherine is rolling a fair die. What is the probability that she does not roll a 6 before her fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#1 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Catherine is rolling a fair die. What is the probability that she does not roll a 6 before her fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#1 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Catherine is rolling a fair die. What is the probability that she does not roll a 6 before her fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#2 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Sebby is also rolling a fair die. What is the probability that he rolls a 6 on the fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#2 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Sebby is also rolling a fair die. What is the probability that he rolls a 6 on the fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#2 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Sebby is also rolling a fair die. What is the probability that he rolls a 6 on the fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#2 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Sebby is also rolling a fair die. What is the probability that he rolls a 6 on the fourth roll?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#3 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

There are 25 students in Mr. Van Treese’s Statistics class. 5 of them are in Math Club, 4 of whom received an A on the last test. 6 of the students not in Math club received an A as well. Natalie received an A on the test; what is the probability that she is in Math Club?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#3 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

There are 25 students in Mr. Van Treese’s Statistics class. 5 of them are in Math Club, 4 of whom received an A on the last test. 6 of the students not in Math club received an A as well. Natalie received an A on the test; what is the probability that she is in Math Club?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#3 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

There are 25 students in Mr. Van Treese’s Statistics class. 5 of them are in Math Club, 4 of whom received an A on the last test. 6 of the students not in Math club received an A as well. Natalie received an A on the test; what is the probability that she is in Math Club?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#3 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

There are 25 students in Mr. Van Treese’s Statistics class. 5 of them are in Math Club, 4 of whom received an A on the last test. 6 of the students not in Math club received an A as well. Natalie received an A on the test; what is the probability that she is in Math Club?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#4 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Katie and Zach are playing darts on a dartboard of radius 3. The bull's-eye is concentric with the dartboard and has radius 1. Assuming that both Katie and Zach hit the dartboard and every point on the dartboard has an equal probability of being hit, what is the probability that they both hit a bull's-eye?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#4 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Katie and Zach are playing darts on a dartboard of radius 3. The bull's-eye is concentric with the dartboard and has radius 1. Assuming that both Katie and Zach hit the dartboard and every point on the dartboard has an equal probability of being hit, what is the probability that they both hit a bull's-eye?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#4 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Katie and Zach are playing darts on a dartboard of radius 3. The bull's-eye is concentric with the dartboard and has radius 1. Assuming that both Katie and Zach hit the dartboard and every point on the dartboard has an equal probability of being hit, what is the probability that they both hit a bull's-eye?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#4 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Katie and Zach are playing darts on a dartboard of radius 3. The bull's-eye is concentric with the dartboard and has radius 1. Assuming that both Katie and Zach hit the dartboard and every point on the dartboard has an equal probability of being hit, what is the probability that they both hit a bull's-eye?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#5 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

Rob and Zack are teaching algebra. On a given day, there is a 10% probability that Avram will know what the absolute value of  $3+4i$  is. Given that Rob and Zack continue to teach Avram until he knows the answer, what is the probability that they teach Avram for exactly three days?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#5 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

Rob and Zack are teaching algebra. On a given day, there is a 10% probability that Avram will know what the absolute value of  $3+4i$  is. Given that Rob and Zack continue to teach Avram until he knows the answer, what is the probability that they teach Avram for exactly three days?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#5 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

Rob and Zack are teaching algebra. On a given day, there is a 10% probability that Avram will know what the absolute value of  $3+4i$  is. Given that Rob and Zack continue to teach Avram until he knows the answer, what is the probability that they teach Avram for exactly three days?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#5 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

Rob and Zack are teaching algebra. On a given day, there is a 10% probability that Avram will know what the absolute value of  $3+4i$  is. Given that Rob and Zack continue to teach Avram until he knows the answer, what is the probability that they teach Avram for exactly three days?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#6 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

What is the z-score of an observation of 220 when the mean of the normal distribution from which this observation comes is 130 and the distribution's standard deviation is 30?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#6 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

What is the z-score of an observation of 220 when the mean of the normal distribution from which this observation comes is 130 and the distribution's standard deviation is 30?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#6 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

What is the z-score of an observation of 220 when the mean of the normal distribution from which this observation comes is 130 and the distribution's standard deviation is 30?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#6 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

What is the z-score of an observation of 220 when the mean of the normal distribution from which this observation comes is 130 and the distribution's standard deviation is 30?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#7 Probability & Statistics - Hustle  
MA© National Convention 2015**

---

$$P(x) = \begin{cases} x, & \text{if } 0 \leq x \leq 1 \\ 1, & \text{if } 1 < x \leq a \\ 0, & \text{otherwise} \end{cases}$$

is a probability distribution. What is the value of  $a$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#7 Probability & Statistics - Hustle  
MA© National Convention 2015**

---

$$P(x) = \begin{cases} x, & \text{if } 0 \leq x \leq 1 \\ 1, & \text{if } 1 < x \leq a \\ 0, & \text{otherwise} \end{cases}$$

is a probability distribution. What is the value of  $a$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#7 Probability & Statistics - Hustle  
MA© National Convention 2015**

---

$$P(x) = \begin{cases} x, & \text{if } 0 \leq x \leq 1 \\ 1, & \text{if } 1 < x \leq a \\ 0, & \text{otherwise} \end{cases}$$

is a probability distribution. What is the value of  $a$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#7 Probability & Statistics - Hustle  
MA© National Convention 2015**

---

$$P(x) = \begin{cases} x, & \text{if } 0 \leq x \leq 1 \\ 1, & \text{if } 1 < x \leq a \\ 0, & \text{otherwise} \end{cases}$$

is a probability distribution. What is the value of  $a$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#8 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the mean of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#8 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the mean of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#8 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the mean of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#8 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the mean of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5



**#9 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the standard deviation of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#9 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the standard deviation of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#9 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the standard deviation of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#9 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

X is a random variable with mean 50 and standard deviation 30. Y is a random variable with mean 100 and standard deviation 40. What is the standard deviation of X+Y?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#10 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the value of  $y$ ?

X	-5	0	1	2	4	6
P(X)	.6	$y$	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#10 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the value of  $y$ ?

X	-5	0	1	2	4	6
P(X)	.6	$y$	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#10 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the value of  $y$ ?

X	-5	0	1	2	4	6
P(X)	.6	$y$	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#10 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the value of  $y$ ?

X	-5	0	1	2	4	6
P(X)	.6	$y$	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#11 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the numerical expected value of this game?

X	-5	0	1	2	4	6
P(X)	.6	y	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#11 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the numerical expected value of this game?

X	-5	0	1	2	4	6
P(X)	.6	y	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#11 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the numerical expected value of this game?

X	-5	0	1	2	4	6
P(X)	.6	y	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#11 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

The probability distribution table for a game appears below. What is the numerical expected value of this game?

X	-5	0	1	2	4	6
P(X)	.6	y	.1	.05	.03	.02

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#12 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

You are dealt three cards from a standard 52 card deck. What is the probability that all three cards are of the same suit? Write your answer as a simplified fraction.

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#12 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

You are dealt three cards from a standard 52 card deck. What is the probability that all three cards are of the same suit? Write your answer as a simplified fraction.

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#12 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

You are dealt three cards from a standard 52 card deck. What is the probability that all three cards are of the same suit? Write your answer as a simplified fraction.

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#12 Probability & Statistics – Hustle  
MA<sup>©</sup> National Convention 2015**

---

You are dealt three cards from a standard 52 card deck. What is the probability that all three cards are of the same suit? Write your answer as a simplified fraction.

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#13 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

What is the mean of the following set?  
{1, 1, 3, 9, 10, 13, 13, 14}

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#13 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

What is the mean of the following set?  
{1, 1, 3, 9, 10, 13, 13, 14}

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#13 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

What is the mean of the following set?  
{1, 1, 3, 9, 10, 13, 13, 14}

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#13 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

What is the mean of the following set?  
{1, 1, 3, 9, 10, 13, 13, 14}

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#14 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is red given that it is a circle?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#14 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is red given that it is a circle?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#14 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is red given that it is a circle?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#14 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is red given that it is a circle?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#15 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is a square given that it is blue?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#15 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is a square given that it is blue?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#15 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is a square given that it is blue?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#15 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

	Circle	Square	Total
Red	32	68	100
Blue	48	12	60
<b>Total</b>	80	80	160

In a collection of red and blue circles and squares, with quantities of each given above, what is the probability that an object is a square given that it is blue?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#16 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

How many distinct permutations are there of the letters in the word STATS?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#16 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

How many distinct permutations are there of the letters in the word STATS?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#16 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

How many distinct permutations are there of the letters in the word STATS?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#16 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

How many distinct permutations are there of the letters in the word STATS?

Answer : \_\_\_\_\_

Round 1 2 3 4 5



**#17 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks a random, positive integer  $n$ . What is the probability that  $\left(\operatorname{cis} \frac{\pi}{4}\right)^n$  is a real number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#17 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks a random, positive integer  $n$ . What is the probability that  $\left(\operatorname{cis} \frac{\pi}{4}\right)^n$  is a real number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#17 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks a random, positive integer  $n$ . What is the probability that  $\left(\operatorname{cis} \frac{\pi}{4}\right)^n$  is a real number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#17 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks a random, positive integer  $n$ . What is the probability that  $\left(\operatorname{cis} \frac{\pi}{4}\right)^n$  is a real number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#18 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks another random, positive integer  $m$ .

What is the probability that  $\left(\text{cis } \frac{\pi}{4}\right)^m$  is a complex number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#18 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks another random, positive integer  $m$ .

What is the probability that  $\left(\text{cis } \frac{\pi}{4}\right)^m$  is a complex number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#18 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks another random, positive integer  $m$ .

What is the probability that  $\left(\text{cis } \frac{\pi}{4}\right)^m$  is a complex number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#18 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Julia picks another random, positive integer  $m$ .

What is the probability that  $\left(\text{cis } \frac{\pi}{4}\right)^m$  is a complex number?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#19 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Nathan picks two marbles (without replacement) out of a bag with 10 blue marbles and 15 white marbles. What is the probability that at least one of the marbles is white?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#19 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Nathan picks two marbles (without replacement) out of a bag with 10 blue marbles and 15 white marbles. What is the probability that at least one of the marbles is white?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#19 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Nathan picks two marbles (without replacement) out of a bag with 10 blue marbles and 15 white marbles. What is the probability that at least one of the marbles is white?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#19 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Nathan picks two marbles (without replacement) out of a bag with 10 blue marbles and 15 white marbles. What is the probability that at least one of the marbles is white?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#20 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Before his final test of the year, Evan has a 90% average. On his last test, he receives a 70%, and his final average is 85%. How many tests did Evan take throughout the year, given that each test was weighted equally and his average was only determined by his tests?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#20 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Before his final test of the year, Evan has a 90% average. On his last test, he receives a 70%, and his final average is 85%. How many tests did Evan take throughout the year, given that each test was weighted equally and his average was only determined by his tests?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#20 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Before his final test of the year, Evan has a 90% average. On his last test, he receives a 70%, and his final average is 85%. How many tests did Evan take throughout the year, given that each test was weighted equally and his average was only determined by his tests?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#20 Probability & Statistics – Hustle  
MA© National Convention 2015**

---

Before his final test of the year, Evan has a 90% average. On his last test, he receives a 70%, and his final average is 85%. How many tests did Evan take throughout the year, given that each test was weighted equally and his average was only determined by his tests?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#21 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the mean of the mean, median, mode, and range of the following data set:

$$\{6,8,9,10,10,10,10,11,16\}$$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#21 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the mean of the mean, median, mode, and range of the following data set:

$$\{6,8,9,10,10,10,10,11,16\}$$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#21 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the mean of the mean, median, mode, and range of the following data set:

$$\{6,8,9,10,10,10,10,11,16\}$$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#21 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the mean of the mean, median, mode, and range of the following data set:

$$\{6,8,9,10,10,10,10,11,16\}$$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#22 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Find the interquartile range of the following set of data:

$\{8,10,22,14,29,5,30,20,17,13\}$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#22 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Find the interquartile range of the following set of data:

$\{8,10,22,14,29,5,30,20,17,13\}$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#22 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Find the interquartile range of the following set of data:

$\{8,10,22,14,29,5,30,20,17,13\}$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#22 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Find the interquartile range of the following set of data:

$\{8,10,22,14,29,5,30,20,17,13\}$

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#23 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

A and B are events such that  $P(A \cap B) = 0.2$  and  $P(B) = 0.4$ . What is  $P(A|B)$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#23 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

A and B are events such that  $P(A \cap B) = 0.2$  and  $P(B) = 0.4$ . What is  $P(A|B)$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#23 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

A and B are events such that  $P(A \cap B) = 0.2$  and  $P(B) = 0.4$ . What is  $P(A|B)$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#23 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

A and B are events such that  $P(A \cap B) = 0.2$  and  $P(B) = 0.4$ . What is  $P(A|B)$ ?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#24 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Alexis is running for president. 80% of the 9<sup>th</sup> and 10<sup>th</sup> graders plan to vote for her, but 11<sup>th</sup> and 12<sup>th</sup> graders make up 60% of the student body. What percentage of 11<sup>th</sup> and 12<sup>th</sup> graders need to vote for her to get 50% of the vote (assuming that all students vote and the student body consists only of 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders)?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#24 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Alexis is running for president. 80% of the 9<sup>th</sup> and 10<sup>th</sup> graders plan to vote for her, but 11<sup>th</sup> and 12<sup>th</sup> graders make up 60% of the student body. What percentage of 11<sup>th</sup> and 12<sup>th</sup> graders need to vote for her to get 50% of the vote (assuming that all students vote and the student body consists only of 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders)?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#24 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Alexis is running for president. 80% of the 9<sup>th</sup> and 10<sup>th</sup> graders plan to vote for her, but 11<sup>th</sup> and 12<sup>th</sup> graders make up 60% of the student body. What percentage of 11<sup>th</sup> and 12<sup>th</sup> graders need to vote for her to get 50% of the vote (assuming that all students vote and the student body consists only of 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders)?

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#24 Probability & Statistics – Hustle  
MA@ National Convention 2015**

---

Alexis is running for president. 80% of the 9<sup>th</sup> and 10<sup>th</sup> graders plan to vote for her, but 11<sup>th</sup> and 12<sup>th</sup> graders make up 60% of the student body. What percentage of 11<sup>th</sup> and 12<sup>th</sup> graders need to vote for her to get 50% of the vote (assuming that all students vote and the student body consists only of 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders)?

Answer : \_\_\_\_\_

Round 1 2 3 4 5



**#25 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the sum of the numbers next to the non-resistant measures:

- |                        |            |
|------------------------|------------|
| (0) Mean               | (-3) Mode  |
| (3) Median             | (-5) Range |
| (5) Standard Deviation |            |

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#25 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the sum of the numbers next to the non-resistant measures:

- |                        |            |
|------------------------|------------|
| (0) Mean               | (-3) Mode  |
| (3) Median             | (-5) Range |
| (5) Standard Deviation |            |

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#25 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the sum of the numbers next to the non-resistant measures:

- |                        |            |
|------------------------|------------|
| (0) Mean               | (-3) Mode  |
| (3) Median             | (-5) Range |
| (5) Standard Deviation |            |

Answer : \_\_\_\_\_

Round 1 2 3 4 5

**#25 Probability & Statistics – Hustle  
MA® National Convention 2015**

---

Find the sum of the numbers next to the non-resistant measures:

- |                        |            |
|------------------------|------------|
| (0) Mean               | (-3) Mode  |
| (3) Median             | (-5) Range |
| (5) Standard Deviation |            |

Answer : \_\_\_\_\_

Round 1 2 3 4 5

