Question #1 of 105

Question ID: 1456400

Compute the standard deviation of a two-stock portfolio if stock A (40% weight) has a variance of 0.0015, stock B (60% weight) has a variance of 0.0021, and the correlation coefficient for the two stocks is –0.35?

A) 1.39%.

B) 2.64%.

C) 0.07%.

Question #2 of 105

Question ID: 1456418

John purchased 60% of the stocks in a portfolio, while Andrew purchased the other 40%. Half of John's stock-picks are considered good, while a fourth of Andrew's are considered to be good. If a randomly chosen stock is a good one, what is the probability John selected it?

A) 0.40.

B) 0.75.

C) 0.30.

Question #3 of 105

Question ID: 1456423

A supervisor is evaluating ten subordinates for their annual performance reviews. According to a new corporate policy, for every ten employees, two must be evaluated as "exceeds expectations," seven as "meets expectations," and one as "does not meet expectations." How many different ways is it possible for the supervisor to assign these ratings?

A) 5,040.

B) 10,080.

C) 360.

Question #4 of 105

Question ID: 1456392

The covariance of the returns on investments X and Y is 18.17. The standard deviation of returns on X is 7%, and the standard deviation of returns on Y is 4%. What is the value of the correlation coefficient for returns on investments X and Y?

A) +0.32.

B) +0.65.

C) +0.85.

Question #5 of 105

Question ID: 1456335

If the probability of an event is 0.20, what are the odds against the event occurring?

A) Five to one.

B) Four to one.

C) One to four.

Question #6 of 105

Question ID: 1456372

The probability that interest rates will increase this year is 40%, and the probability that inflation will be over 2% is 30%. If inflation is over 2%, the probability of an increase in interest rates is 50%. The probability that inflation will be over 2% or interest rates increase this year is:

A) 20%.

B) 55%.

C) 70%.

Question #7 of 105

Question ID: 1456355

The following table summarizes the results of a poll taken of CEO's and analysts concerning the economic impact of a pending piece of legislation:

Group	Think it will have a positive impact	Think it will have a negative impact	Total
CEO's	40	30	70
Analysts	70	60	130
	110	90	200

What is the probability that a randomly selected individual from this group will be either an analyst or someone who thinks this legislation will have a positive impact on the economy?

A) 0.75.

B) 0.80.

C) 0.85.

Question #8 of 105

Question ID: 1456380

The events Y and Z are mutually exclusive and exhaustive: P(Y) = 0.4 and P(Z) = 0.6. If the probability of X given Y is 0.9, and the probability of X given Z is 0.1, what is the unconditional probability of X?

A) 0.33.

B) 0.40.

C) 0.42.

Question #9 of 105

Question ID: 1456339

A recent study indicates that the probability that a company's earnings will exceed consensus expectations equals 50%. From this analysis, the odds that the company's earnings exceed expectations are:

A) 1 to 1.

B) 1 to 2.

C) 2 to 1.

Question #10 of 105

Question ID: 1456405

Use the following probability distribution.

State of the Economy	Probability	Return on Portfolio
Boom	0.30	15%
Bust	0.70	3%

The expected return for the portfolio is:

A) 6.6%.

B) 8.1%.

C) 9.0%.

Question #11 of 105

Question ID: 1456394

The returns on assets C and D are strongly correlated with a correlation coefficient of 0.80. The variance of returns on C is 0.0009, and the variance of returns on D is 0.0036. What is the covariance of returns on C and D?

A) 0.00144.

B) 0.03020.

C) 0.40110.

Question #12 of 105

Question ID: 1456338

Last year, the average salary increase for poultry research assistants was 2.5%. Of the 10,000 poultry research assistants, 2,000 received raises in excess of this amount. The odds that a randomly selected poultry research assistant received a salary increase in excess of 2.5% are:

A) 1 to 4.

B) 1 to 5.

C) 20%.

Question #13 of 105

Question ID: 1456348

A very large company has equal amounts of male and female employees. If a random sample of four employees is selected, what is the probability that all four employees selected are female?

A) 0.0256.

B) 0.1600.

C) 0.0625.

Question #14 of 105

Question ID: 1456347

If two fair coins are flipped and two fair six-sided dice are rolled, all at the same time, what is the probability of ending up with two heads (on the coins) and two sixes (on the dice)?

A) 0.8333.

B) 0.0069.

C) 0.4167.

Question #15 of 105

Question ID: 1456337

If the probability of an event is 0.10, what are the odds for the event occurring?

A) Nine to one.

B) One to ten.

C) One to nine.

Question #16 of 105

Question ID: 1456341

A company has two machines that produce widgets. An older machine produces 16% defective widgets, while the new machine produces only 8% defective widgets. In addition, the new machine employs a superior production process such that it produces three times as many widgets as the older machine does. Given that a widget was produced by the new machine, what is the probability it is NOT defective?

A) 0.06.

B) 0.76.

C) 0.92.

Question #17 of 105

Question ID: 1456385

There is a 60% chance that the economy will be good next year and a 40% chance that it will be bad. If the economy is good, there is a 70% chance that XYZ Incorporated will have EPS of $5.00 and a 30% chance that their earnings will be $3.50. If the economy is bad, there is an 80% chance that XYZ Incorporated will have EPS of $1.50 and a 20% chance that their earnings will be $1.00. What is the firm's expected EPS?

A) $2.75.

B) $3.29.

C) $5.95.

Question #18 of 105

Question ID: 1456424

Which of the following statements about counting methods is *least* accurate?

A) The combination formula determines the number of different ways a group of objects can be drawn in a specific order from a larger sized group of objects.

B) The labeling formula determines the number of different ways to assign a given number of different labels to a set of objects.

C) The multiplication rule of counting is used to determine the number of different ways to choose one object from each of two or more groups.

Question #19 of 105

Question ID: 1456343

Which probability rule determines the probability that two events will both occur?

A) The addition rule.

B) The multiplication rule.

C) The total probability rule.

Question #20 of 105

Question ID: 1456408

If Stock X has a standard deviation of returns of 18.9% and Stock Y has a standard deviation of returns equal to 14.73% and returns on the stocks are perfectly positively correlated, the standard deviation of an equally weighted portfolio of the two is:

A) 10.25%.

B) 14.67%.

C) 16.82%.

Question #21 of 105

Question ID: 1456375

If the outcome of event A is not affected by event B, then events A and B are said to be:

A) conditionally dependent.

B) mutually exclusive.

C) independent.

Question #22 of 105

Question ID: 1456427

Marc Chausset, CFA, will be assigning ratings of either outperform, market perform, or underperform to the 12 stocks he follows. If he assigns each rating to the same number of stocks, the number of ways he can do this is *most appropriately* determined using:

A) factorials.

B) the combination formula.

C) the permutation formula.

Question #23 of 105

Question ID: 1456399

For assets A and B we know the following: $E(R_A) = 0.10$, $E(R_B) = 0.20$, $Var(R_A) = 0.25$, $Var(R_B) = 0.36$ and the correlation of the returns is 0.6. What is the expected return of a portfolio that is equally invested in the two assets?

A) 0.2275.

B) 0.3050.

C) 0.1500.

Question #24 of 105

Question ID: 1456363

Helen Pedersen has all her money invested in either of two mutual funds (Y and Z). She knows that there is a 40% probability that Fund Y will rise in price and a 60% probability that Fund Z will rise in price if Fund Y rises in price. What is the probability that both Fund Y and Fund Z will rise in price?

A) 0.24.

B) 1.00.

C) 0.40.

Question #25 of 105

Question ID: 1456379

Firm A can fall short, meet, or exceed its earnings forecast. Each of these events is equally likely. Whether firm A increases its dividend will depend upon these outcomes. Respectively, the probabilities of a dividend increase conditional on the firm falling short, meeting or exceeding the forecast are 20%, 30%, and 50%. The unconditional probability of a dividend increase is:

A) 0.500.

B) 0.333.

C) 1.000.

Question #26 of 105

Question ID: 1456324

Which of the following statements about probability is *most* accurate?

A) An outcome is the calculated probability of an event.

B) A conditional probability is the probability that two or more events will happen concurrently.

C) An event is a set of one or more possible values of a random variable.

Question #27 of 105

Question ID: 1456412

The joint probability function for returns on an equity index (RI) and returns on a stock (RS)is given in the following table:

	Returns on Index (R_I)		
Return on stock (R_S)	**$R_I = 0.16$**	**$R_I = 0.02$**	**$R_I = -0.10$**
$R_S = 0.24$	0.25	0.00	0.00
$R_S = 0.03$	0.00	0.45	0.00
$R_S = -0.15$	0.00	0.00	0.30

Covariance between stock returns and index returns is *closest* to:

A) 0.014.

B) 0.019.

C) 0.029.

Question #28 of 105

Question #28 of 105

Question ID: 1456365

In a given portfolio, half of the stocks have a beta greater than one. Of those with a beta greater than one, a third are in a computer-related business. What is the probability of a randomly drawn stock from the portfolio having both a beta greater than one and being in a computer-related business?

A) 0.667.

B) 0.333.

C) 0.167.

Question #29 of 105

Question ID: 1456331

Each lottery ticket discloses the odds of winning. These odds are based on:

A) past lottery history.

B) the best estimate of the Department of Gaming.

C) a priori probability.

Question #30 of 105

Question ID: 1456395

An investor has two stocks, Stock R and Stock S in her portfolio. Given the following information on the two stocks, the portfolio's standard deviation is *closest* to:

- $\sigma_R = 34\%$
- $\sigma_S = 16\%$
- $r_{R,S} = 0.67$
- $W_R = 80\%$
- $W_S = 20\%$

A) 29.4%.

B) 8.7%.

C) 7.8%.

Question #31 of 105

Question ID: 1456407

The following table shows the weightings and expected returns for a portfolio of three stocks:

Stock	Weight	$E(R_X)$
V	0.40	12%
M	0.35	8%
S	0.25	5%

What is the expected return of this portfolio?

A) 9.05%.

B) 8.33%.

C) 8.85%.

Question #32 of 105

Question ID: 1456357

The following table summarizes the availability of trucks with air bags and bucket seats at a dealership.

	Bucket Seats	No Bucket Seats	Total
Air Bags	75	50	125
No Air Bags	35	60	95
Total	110	110	220

What is the probability of selecting a truck at random that has either air bags or bucket seats?

A) 34%.

B) 73%.

C) 107%.

Question #33 of 105

Question ID: 1456388

A conditional expectation involves:

A) refining a forecast because of the occurrence of some other event.

B) determining the expected joint probability.

C) calculating the conditional variance.

Question #34 of 105

Question ID: 1456352

There is a 50% probability that the Fed will cut interest rates tomorrow. On any given day, there is a 67% probability the DJIA will increase. On days the Fed cuts interest rates, the probability the DJIA will go up is 90%. What is the probability that tomorrow the Fed will cut interest rates or the DJIA will go up?

A) 0.72.

B) 0.95.

C) 0.33.

Question #35 of 105

Question ID: 1456390

Tina O'Fahey, CFA, believes a stock's price in the next quarter depends on two factors: the direction of the overall market and whether the company's next earnings report is good or poor. The possible outcomes and some probabilities are illustrated in the tree diagram shown below:

Based on this tree diagram, the expected value of the stock if the market decreases is *closest* to:

A) $62.50.

B) $26.00.

C) $57.00.

Question #36 of 105

Question ID: 1456386

A two-sided but very thick coin is expected to land on its edge twice out of every 100 flips. And the probability of face up (heads) and the probability of face down (tails) are equal. When the coin is flipped, the prize is $1 for heads, $2 for tails, and $50 when the coin lands on its edge. What is the expected value of the prize on a single coin toss?

A) $2.47.

B) $17.67.

C) $1.50.

Question #37 of 105

Question ID: 1456382

Tully Advisers, Inc., has determined four possible economic scenarios and has projected the portfolio returns for two portfolios for their client under each scenario. Tully's economist has estimated the probability of each scenario as shown in the table below. Given this information, what is the expected return on Portfolio A?

Scenario	Probability	Return on Portfolio A	Return on Portfolio B
A	15%	17%	19%
B	20%	14%	18%
C	25%	12%	10%
D	40%	8%	9%

A) 12.55%.

B) 11.55%.

C) 12.75%.

Question #38 of 105

Question ID: 1456350

The probabilities that the prices of shares of Alpha Publishing and Omega Software will fall below $35 in the next six months are 65% and 47%. If these probabilities are independent, the probability that the shares of at least one of the companies will fall below $35 in the next six months is:

A) 0.31.

B) 0.81.

C) 1.00.

Question #39 of 105

Question ID: 1470879

Given the following probability distribution, find the covariance of the expected returns for stocks A and B.

Event	$P(R_i)$	R_A	R_B
Recession	0.10	-5%	4%
Below Average	0.30	-2%	8%
Normal	0.50	10%	10%
Boom	0.10	31%	12%

A) 3.2.

B) 17.4.

C) 10.9

Question #40 of 105

Question ID: 1456419

An analyst expects that 20% of all publicly traded companies will experience a decline in earnings next year. The analyst has developed a ratio to help forecast this decline. If the company has a decline in earnings, there is a 90% probability that this ratio will be negative. If the company does not have a decline in earnings, there is only a 10% probability that the ratio will be negative. The analyst randomly selects a company with a negative ratio. Based on Bayes' theorem, the updated probability that the company will experience a decline is:

A) 18%.

B) 26%.

C) 69%.

Question #41 of 105

Question ID: 1456383

An investor is considering purchasing ACQ. There is a 30% probability that ACQ will be acquired in the next two months. If ACQ is acquired, there is a 40% probability of earning a 30% return on the investment and a 60% probability of earning 25%. If ACQ is not acquired, the expected return is 12%. What is the expected return on this investment?

A) 16.5%.

B) 12.3%.

C) 18.3%.

Question #42 of 105

Question ID: 1456345

A bond portfolio consists of four BB-rated bonds. Each has a probability of default of 24% and these probabilities are independent. What are the probabilities of all the bonds defaulting and the probability of all the bonds not defaulting, respectively?

A) 0.00332; 0.33360.

B) 0.04000; 0.96000.

C) 0.96000; 0.04000.

Question #43 of 105

Question ID: 1456422

A firm wants to select a team of five from a group of ten employees. How many ways can the firm compose the team of five?

A) 25.

B) 120.

C) 252.

Question #44 of 105

Question ID: 1456326

The probability that tomorrow's high temperature will be below 32 degrees F is 20%. The probability that tomorrow's high temperature will be above 40 degrees F is 10%. These two events are:

A) independent.

B) exhaustive.

C) mutually exclusive.

Question #45 of 105

Question ID: 1456332

Which of the following is an *a priori* probability?

A) An analyst's estimate of the probability the central bank will decrease interest rates this month.

B) On a random draw, the probability of choosing a stock of a particular industry from the S&P 500.

C) For a stock, based on prior patterns of up and down days, the probability of having a down day tomorrow.

Question #46 of 105

Question ID: 1456426

A firm is going to divide 12 employees into three teams of four. How many ways can the 12 employees be selected for the three teams?

A) 144.

B) 34,650.

C) 3,326,400.

Question #47 of 105

Question ID: 1456333

Let A and B be two mutually exclusive events with P(A) = 0.40 and P(B) = 0.20. Therefore:

A) P(A and B) = 0.

B) P(A and B) = 0.08.

C) P(B | A) = 0.20.

Question #48 of 105

Question ID: 1456374

The probability of rolling a 3 on the fourth roll of a fair 6-sided die:

A) depends on the results of the three previous rolls.

B) is 1/6 to the fourth power.

C) is equal to the probability of rolling a 3 on the first roll.

Question #49 of 105

Question ID: 1456398

The following information is available concerning expected return and standard deviation of Pluto and Neptune Corporations:

	Expected Return	Standard Deviation
Pluto Corporation	11%	0.22
Neptune Corporation	9%	0.13

If the correlation between Pluto and Neptune is 0.25, determine the expected return and standard deviation of a portfolio that consists of 65% Pluto Corporation stock and 35% Neptune Corporation stock.

A) 10.0% expected return and 16.05% standard deviation.

B) 10.3% expected return and 16.05% standard deviation.

C) 10.3% expected return and 2.58% standard deviation.

Question #50 of 105

Question ID: 1377126

An investment manager has a pool of five security analysts he can choose from to cover three different industries. In how many different ways can the manager assign one analyst to each industry?

A) 10.

B) 60.

C) 125.

Question #51 of 105

Question ID: 1456336

The probabilities of earning a specified return from a portfolio are shown below:

Probability	Return
0.20	10%
0.20	20%
0.20	22%
0.20	15%
0.20	25%

What are the odds of earning at least 20%?

A) Three to five.

B) Three to two.

C) Two to three.

Question #52 of 105

Question ID: 1456391

The covariance of returns on two investments over a 10-year period is 0.009. If the variance of returns for investment A is 0.020 and the variance of returns for investment B is 0.033, what is the correlation coefficient for the returns?

A) 0.687.

B) 0.350.

C) 0.444.

Question #53 of 105

Question ID: 1456415

An economist estimates a 60% probability that the economy will expand next year. The technology sector has a 70% probability of outperforming the market if the economy expands and a 10% probability of outperforming the market if the economy does not expand. Given the new information that the technology sector will not outperform the market, the probability that the economy will not expand is *closest* to:

A) 67%.

B) 33%.

C) 54%.

Question #54 of 105

Question ID: 1456358

Thomas Baynes has applied to both Harvard and Yale. Baynes has determined that the probability of getting into Harvard is 25% and the probability of getting into Yale (his father's alma mater) is 42%. Baynes has also determined that the probability of being accepted at both schools is 2.8%. What is the probability of Baynes being accepted at either Harvard or Yale?

A) 10.5%.

B) 64.2%.

C) 7.7%.

Question #55 of 105

Question ID: 1456397

Assume two stocks are perfectly negatively correlated. Stock A has a standard deviation of 10.2% and stock B has a standard deviation of 13.9%. What is the standard deviation of the portfolio if 75% is invested in A and 25% in B?

A) 0.00%.

B) 0.17%.

C) 4.18%.

Question #56 of 105

Question ID: 1456361

If the probability of both a new Wal-Mart and a new Wendy's being built next month is 68% and the probability of a new Wal-Mart being built is 85%, what is the probability of a new Wendy's being built if a new Wal-Mart is built?

A) 0.60.

B) 0.70.

C) 0.80.

Question #57 of 105

Question ID: 1456403

Tully Advisers, Inc., has determined four possible economic scenarios and has projected the portfolio returns for two portfolios for their client under each scenario. Tully's economist has estimated the probability of each scenario, as shown in the table below. Given this information, what is the standard deviation of returns on portfolio A?

Scenario	Probability	Return on Portfolio A	Return on Portfolio B
A	15%	18%	19%
B	20%	17%	18%
C	25%	11%	10%
D	40%	7%	9%

A) 5.992%.

B) 1.140%.

C) 4.53%.

Question #58 of 105

Question ID: 1456366

A firm holds two $50 million bonds with call dates this week.

- The probability that Bond A will be called is 0.80.
- The probability that Bond B will be called is 0.30.

The probability that at least one of the bonds will be called is *closest to*:

A) 0.24.

B) 0.50.

C) 0.86.

Question #59 of 105

Question ID: 1456402

Given the following probability distribution, find the standard deviation of expected returns.

Event	$P(R_A)$	R_A
Recession	0.10	-5%
Below Average	0.30	-2%
Normal	0.50	10%
Boom	0.10	31%

A) 7.00%.

B) 10.04%.

C) 12.45%.

Question #60 of 105

Question ID: 1456330

Which of the following statements about the defining properties of probability is *least* accurate?

A) The probability of an event may be equal to zero or equal to one.

B) To state a probability, a set of mutually exclusive and exhaustive events must be defined.

C) The sum of the probabilities of events equals one if the events are mutually exclusive and exhaustive.

Question #61 of 105

Question ID: 1456360

Pat Binder, CFA, is examining the effect of an inverted yield curve on the stock market. She determines that in the past century, when the yield curve has inverted, a bear market ensued 75% of the time. Binder believes the probability of an inverted yield curve in the next year is 20%. The probability that there will be an inverted yield curve next year followed by a bear market is *closest to:*

A) 20%.

B) 75%.

C) 15%.

Question #62 of 105

Question ID: 1456329

An empirical probability is one that is:

A) derived from analyzing past data.

B) supported by formal reasoning.

C) determined by mathematical principles.

Question #63 of 105

Question ID: 1456367

A parking lot has 100 red and blue cars in it.

- 40% of the cars are red.
- 70% of the red cars have radios.
- 80% of the blue cars have radios.

What is the probability of selecting a car at random and having it be red and have a radio?

A) 28%.

B) 48%.

C) 25%.

Question #64 of 105

Question ID: 1456404

For assets A and B we know the following: $E(R_A) = 0.10$, $E(R_B) = 0.10$, $Var(R_A) = 0.18$, $Var(R_B) = 0.36$ and the correlation of the returns is 0.6. What is the variance of the return of a portfolio that is equally invested in the two assets?

A) 0.1102.

B) 0.1500.

C) 0.2114.

Question #65 of 105

Question ID: 1456406

Use the following probability distribution to calculate the standard deviation for the portfolio.

State of the Economy	Probability	Return on Portfolio
Boom	0.30	15%
Bust	0.70	3%

A) 5.5%.

B) 6.0%.

C) 6.5%.

Question #66 of 105

Question ID: 1456351

The following table summarizes the results of a poll taken of executives and analysts concerning the economic impact of a pending piece of legislation:

Group	Think it will have a positive impact	Think it will have a negative impact	Total
Executives	40	30	70
Analysts	70	60	130
	110	90	200

What is the probability that a randomly selected individual from this group will be an analyst that thinks that the legislation will have a positive impact on the economy?

A) 0.6464.

B) 0.3575.

C) 0.35.

Question #67 of 105

Question ID: 1456389

An analyst announces that an increase in the discount rate next quarter will double her earnings forecast for a firm. This is an example of a:

A) use of Bayes' formula.

B) joint probability.

C) conditional expectation.

Question #68 of 105

Question ID: 1456356

Given the following table about employees of a company based on whether they are smokers or nonsmokers and whether or not they suffer from any allergies, what is the probability of suffering from allergies or being a smoker?

	Suffer from Allergies	Don't Suffer from Allergies	Total
Smoker	35	25	60
Nonsmoker	55	185	240
Total	90	210	300

A) 0.88.

B) 0.38.

C) 0.12.

Question #69 of 105

Question ID: 1456340

An unconditional probability is *most accurately* described as the probability of an event independent of:

A) its own past outcomes.

B) the outcomes of other events.

C) an observer's subjective judgment.

Question #70 of 105

Question ID: 1456325

In the context of probability, an event is *most accurately* defined as:

A) a single outcome or a set of outcomes.

B) an experiment used to estimate a probability.

C) an observed value of a random variable.

Question #71 of 105

Question ID: 1456410

Personal Advisers, Inc., has determined four possible economic scenarios and has projected the portfolio returns for two portfolios for their client under each scenario. Personal's economist has estimated the probability of each scenario as shown in the table below. Given this information, what is the covariance of the returns on Portfolio A and Portfolio B?

Scenario	Probability	Return on Portfolio A	Return on Portfolio B
A	15%	18%	19%
B	20%	17%	18%
C	25%	11%	10%
D	40%	7%	9%

A) 0.001898.

B) 0.890223.

C) 0.002019.

Question #72 of 105

Question ID: 1456411

Joe Mayer, CFA, projects that XYZ Company's return on equity varies with the state of the economy in the following way:

State of Economy	Probability of Occurrence	Company Returns
Good	.20	20%
Normal	.50	15%
Poor	.30	10%

The standard deviation of XYZ's expected return on equity is *closest* to:

A) 12.3%.

B) 3.5%.

C) 1.5%.

Question #73 of 105

Question ID: 1456378

Jay Hamilton, CFA, is analyzing Madison, Inc., a distressed firm. Hamilton believes the firm's survival over the next year depends on the state of the economy. Hamilton assigns probabilities to four economic growth scenarios and estimates the probability of bankruptcy for Madison under each:

Economic growth scenario	Probability of scenario	Probability of bankruptcy
Recession (< 0%)	20%	60%
Slow growth (0% to 2%)	30%	40%
Normal growth (2% to 4%)	40%	20%
Rapid growth (> 4%)	10%	10%

Based on Hamilton's estimates, the probability that Madison, Inc. does not go bankrupt in the next year is *closest* to:

A) 67%.

B) 18%.

C) 33%.

Question #74 of 105

Question ID: 1456376

If X and Y are independent events, which of the following is *most* accurate?

A) P(X | Y) = P(X).

B) P(X or Y) = P(X) + P(Y).

C) P(X or Y) = (P(X)) × (P(Y)).

Question #75 of 105

Question ID: 1456364

Data shows that 75 out of 100 tourists who visit New York City visit the Empire State Building. It rains or snows in New York City one day in five. What is the joint probability that a randomly chosen tourist visits the Empire State Building on a day when it neither rains nor snows?

A) 60%.

B) 95%.

C) 15%.

Question #76 of 105

Question ID: 1456369

There is a 40% probability that the economy will be good next year and a 60% probability that it will be bad. If the economy is good, there is a 50 percent probability of a bull market, a 30% probability of a normal market, and a 20% probability of a bear market. If the economy is bad, there is a 20% probability of a bull market, a 30% probability of a normal market, and a 50% probability of a bear market. What is the joint probability of a good economy and a bull market?

A) 50%.

B) 20%.

C) 12%.

Question #77 of 105

Question ID: 1456349

An analyst has a list of 20 bonds of which 14 are callable, and five have warrants attached to them. Two of the callable bonds have warrants attached to them. If a single bond is chosen at random, what is the probability of choosing a callable bond or a bond with a warrant?

A) 0.85.

B) 0.55.

C) 0.70.

Question #78 of 105

Question ID: 1456384

There is a 40% probability that an investment will earn 10%, a 40% probability that the investment will earn 12.5%, and a 20% probability that the investment will earn 30%. What are the mean expected return and the standard deviation of expected returns, respectively?

A) 15.0%; 7.58%.

B) 15.0%; 5.75%.

C) 17.5%; 5.75%.

Question #79 of 105

Question ID: 1456425

Determining the number of ways five tasks can be done in order, requires:

A) only the factorial function.

B) the labeling formula.

C) the permutation formula.

Question #80 of 105

Question ID: 1456414

For two random variables, P(X = 20, Y = 0) = 0.4, and P(X = 30, Y = 50) = 0.6. Given that E(X) is 26 and E(Y) is 30, the covariance of X and Y is:

A) 120.00.

B) 125.00.

C) 25.00.

Question #81 of 105

Question ID: 1456346

The probability of each of three independent events is shown in the table below. What is the probability of A and C occurring, but not B?

Event	Probability of Occurrence
A	25%
B	15%
C	42%

A) 8.9%.

B) 3.8%.

C) 10.5%.

Question #82 of 105

Question ID: 1456393

If given the standard deviations of the returns of two assets and the correlation between the two assets, which of the following would an analyst *least likely* be able to derive from these?

A) Covariance between the returns.

B) Strength of the linear relationship between the two.

C) Expected returns.

Question #83 of 105

Question ID: 1456334

If the odds against an event occurring are twelve to one, what is the probability that it will occur?

A) 0.0833.

B) 0.9231.

C) 0.0769.

Question #84 of 105

Question ID: 1456396

What is the standard deviation of a portfolio if you invest 30% in stock one (standard deviation of 4.6%) and 70% in stock two (standard deviation of 7.8%) if the correlation coefficient for the two stocks is 0.45?

A) 0.38%.

B) 6.20%.

C) 6.83%.

Question #85 of 105

Question ID: 1456413

For two random variables, P(X = 2, Y = 10) = 0.3, P(X = 6, Y = 2.5) = 0.4, and P(X = 10, Y = 0) = 0.3. Given that E(X) is 6 and E(Y) is 4, the covariance of X and Y is:

A) -12.0.

B) 24.0.

C) 6.0.

Question #86 of 105

Question ID: 1456387

Use the following data to calculate the standard deviation of the return:

- 50% chance of a 12% return
- 30% chance of a 10% return
- 20% chance of a 15% return

A) 3.0%.

B) 2.5%.

C) 1.7%.

Question #87 of 105

Question ID: 1456371

Based on historical data, Metro Utilities increases its dividend in 80% of years when GDP increases and 30% of years in which GDP decreases. An analyst believes that there is a 30% probability that GDP will decrease next year. Based on these data and estimates, the probability that GDP will increase next year and Metro will increase its dividend is:

A) 14%.

B) 24%.

C) 56%.

Question #88 of 105

Question ID: 1456353

Given the following table about employees of a company based on whether they are smokers or nonsmokers and whether or not they suffer from any allergies, what is the probability of being either a nonsmoker or not suffering from allergies?

	Suffer from Allergies	Don't Suffer from Allergies	Total
Smoker	35	25	60
Nonsmoker	55	185	240
Total	90	210	300

A) 0.38.

B) 0.50.

C) 0.88.

Question #89 of 105

Question ID: 1456370

There is a 40% probability that the economy will be good next year and a 60% probability that it will be bad. If the economy is good, there is a 50 percent probability of a bull market, a 30% probability of a normal market, and a 20% probability of a bear market. If the economy is bad, there is a 20% probability of a bull market, a 30% probability of a normal market, and a 50% probability of a bear market. What is the probability of a bull market next year?

A) 20%.

B) 32%.

C) 50%.

Question #90 of 105

Question ID: 1456368

A parking lot has 100 red and blue cars in it.

- 40% of the cars are red.
- 70% of the red cars have radios.
- 80% of the blue cars have radios.

What is the probability of selecting a car at random that is either red or has a radio?

A) 76%.

B) 88%.

C) 28%.

Question #91 of 105

Question ID: 1456359

Avery Scott, financial planner, recently obtained his CFA Charter and is considering multiple job offers. Scott devised the following four criteria to help him decide which offers to pursue most aggressively.

Criterion	% Expected to Meet the Criteria
1. Within 75 miles of San Francisco	0.85
2. Employee size less than 50	0.50
3. Compensation package exceeding $100,000	0.30
4. Three weeks of vacation	0.15

If Scott has 20 job offers and the probabilities of meeting each criterion are independent, how many are expected to meet all of his criteria? (Round to nearest whole number).

A) 0.

B) 1.

C) 3.

Question #92 of 105

Question ID: 1456420

A parking lot has 100 red and blue cars in it.

- 40% of the cars are red.
- 70% of the red cars have radios.
- 80% of the blue cars have radios.

What is the probability that the car is red given that it has a radio?

A) 47%.

B) 28%.

C) 37%.

Question #93 of 105

Question ID: 1456344

The multiplication rule of probability is used to calculate the:

A) joint probability of two events.

B) unconditional probability of an event, given conditional probabilities.

C) probability of at least one of two events.

Question #94 of 105

Question ID: 1456377

The unconditional probability of an event, given conditional probabilities, is determined by using the:

A) addition rule of probability.

B) multiplication rule of probability.

C) total probability rule.

Question #95 of 105

Question ID: 1456373

A bag of marbles contains 3 white and 4 black marbles. A marble will be drawn from the bag randomly three times and put back into the bag. Relative to the outcomes of the first two draws, the probability that the third marble drawn is white is:

A) conditional.

B) dependent.

C) independent.

Question #96 of 105

Question ID: 1456328

Which of the following is an empirical probability?

A) The probability the Fed will lower interest rates prior to the end of the year.

B) On a random draw, the probability of choosing a stock of a particular industry from the S&P 500 based on the number of firms.

C) For a stock, based on prior patterns of up and down days, the probability of the stock having a down day tomorrow.

Question #97 of 105

Question ID: 1456354

A very large company has twice as many male employees relative to female employees. If a random sample of four employees is selected, what is the probability that all four employees selected are female?

A) 0.0123.

B) 0.0625.

C) 0.3333.

Question #98 of 105

Question ID: 1456327

If two events are mutually exclusive, the probability that they both will occur at the same time is:

A) 0.00.

B) Cannot be determined from the information given.

C) 0.50.

Question #99 of 105

Question ID: 1456342

The probability of a new office building being built in town is 64%. The probability of a new office building that includes a coffee shop being built in town is 58%. If a new office building is built in town, the probability that it includes a coffee shop is *closest* to:

A) 91%.

B) 37%.

C) 58%.

Question #100 of 105

Question ID: 1456421

A portfolio manager wants to eliminate four stocks from a portfolio that consists of six stocks. How many ways can the four stocks be sold when the order of the sales is important?

A) 360.

B) 24.

C) 180.

Question #101 of 105

Question ID: 1456381

The probability of a good economy is 0.55 and the probability of a poor economy is 0.45. Given a good economy, the probability that the earnings of HomeBuilder Inc. will increase is 0.60 and the probability that earnings will not increase is 0.40. Given a poor economy, the probability that earnings will increase is 0.30 and the probability that earnings will not increase is 0.70. The unconditional probability that earnings will increase is *closest* to:

A) 0.18.

B) 0.33.

C) 0.47.

Question #102 of 105

Question ID: 1456416

The probability of A is 0.4. The probability of A^C is 0.6. The probability of (B | A) is 0.5, and the probability of (B | A^C) is 0.2. Using Bayes' formula, what is the probability of (A | B)?

A) 0.625.

B) 0.375.

C) 0.125.

Question #103 of 105

Question ID: 1456362

The following table summarizes the availability of trucks with air bags and bucket seats at a dealership.

	Bucket Seats	No Bucket Seats	Total
Air Bags	75	50	125
No Air Bags	35	60	95
Total	110	110	220

What is the probability of randomly selecting a truck with air bags and bucket seats?

A) 28%.

B) 34%.

C) 16%.

Question #104 of 105

Question ID: 1456401

Given P(X = 2) = 0.3, P(X = 3) = 0.4, P(X = 4) = 0.3. What is the variance of X?

A) 0.3.

B) 0.6.

C) 3.0.

Question #105 of 105

Question ID: 1456417

Bonds rated B have a 25% chance of default in five years. Bonds rated CCC have a 40% chance of default in five years. A portfolio consists of 30% B and 70% CCC-rated bonds. If a randomly selected bond defaults in a five-year period, what is the probability that it was a B-rated bond?

A) 0.211.

B) 0.250.

C) 0.625.