

College Bowls

7th & 8th

Grade

SETS 1-6

w/Extra

Questions at

the end.

COLLEGE BOWLS INSTRUCTIONS

Read these to the competitors before first round:

COLLEGE BOWLS - up to 10 minutes per round - 10 problems per round - 10% of team score

1. *All competitors must be facing the front of the room in one row. All spectators need to be behind the competitors.*
2. *A maximum of ten questions per round will be scored. It is OK for both teams to score the same number of points! The proctor will record the points earned on each team's score sheet.*
3. *You may use scratch paper and pencil. You may talk with your teammates while arriving at a solution. An Electronic College Bowl Apparatus (CBA) will be used to identify the first team to have an answer.*
4. *During these rounds, the questions will be read twice and a maximum time of 45 seconds will be allowed for you to answer after the second reading of the question is complete. If a team buzzes in after the second reading and gives an incorrect response, the other team has the remainder of the 45 seconds to respond. You may interrupt (buzz in) while a question is being read, however, if you do, the proctor will stop and an immediate response is needed. If the correct response is given, a new question will be asked. Otherwise, the question will be reread for the other team, making sure it has two full readings. Forty-five seconds will be given for the team to respond from the completion of the last reading. If an immediate response is not given after a team pulls the string, their lack of an answer in a timely manner is considered incorrect. In the event that only one team is competing in a round (i.e., one team is absent), the team competing will have a maximum of 30 seconds in which to buzz in.*
5. *You do not need to wait to be acknowledged by the proctor; however, it is your right to do so if you would like to be acknowledged.*
6. *If two students from the same team answer at the same time with different answers, the answer will be considered incorrect.*
7. *If a problem arises with one of the questions, an extra question will be asked to replace that question. There is only one extra question per round. If the round finishes early, you need to stay in the room for the remaining time.*

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COLLEGE KNOWLEDGE BOWL ROUND #1 – SET 1

#	Problem	Answer
1	How many handshakes occur in a group of 20 people if everyone shakes hands with every person exactly once?	190 [handshakes]
2	Malala asks Kailash what time he woke up before school started at 7:30 a.m. He responds by saying that he doesn't remember the exact time but he woke up after 6:00 a.m., but before 6:30 a.m. and he happened to notice that the smallest angle between the minute and hour hand was exactly 70° . What time did Kailash wake up?	6:20 a.m.
3	What is 20 times 14 plus 2014?	2294
4	What is the sum of the first 100 counting numbers?	5050
5	How much time in minutes passes between 7:21 AM and 1:01 PM?	340 [minutes]
6	How many different ways can you arrange the letters in the word F-O-R-T-Y?	120 [ways]
7	What is the product of 21 times 13?	273
8	What is the probability of rolling a 2 or higher on a fair six-sided die?	$\frac{5}{6}$
9	If x equals 2, y equals 5, and x times y times z equals 9900, what is the value of z?	[z=] 990
10	If a car travels 40 miles an hour, how long, in minutes, does it take to drive 320 miles?	480 [minutes]

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COLLEGE KNOWLEDGE BOWL ROUND #2 – SET 2

#	Problem	Answer
1	What is the remainder when 2014 is divided by 3?	[remainder] 1
2	Apples are 17 cents each and oranges are x cents each. Three apples and an orange cost 70 cents total. How much is an orange?	19 [cents]
3	How many ways can Malala choose three people from a group of ten people to rake her leaves?	120 [ways]
4	Kailash drinks $\frac{1}{3}$ of a gallon of milk a day. How many days will need to pass for him to drink 22 and $\frac{2}{3}$ gallons of milk?	68 [days]
5	What is the sum of the first five prime numbers?	28
6	What is 30 percent of 150?	45
7	What is the side length of a cube with surface area 864 inches squared?	12 [inches]
8	Solve for x greater than 0, if x squared plus x equals 20?	[x =] 4
9	Malala bakes a dozen cookies every 20 minutes. How many minutes pass if she's baked 108 cookies?	180 [minutes]
10	How many pints are in 6 gallons?	48 [pints]

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COLLEGE KNOWLEDGE BOWL ROUND #3 – SET 3

#	Problem	Answer
1	What is the length of the hypotenuse of a right triangle with legs of length 6 and 8 units?	10 [units]
2	How many distinct ways can you arrange four books on a shelf?	24 [ways]
3	Seven flowers go into a bouquet. How many complete bouquets can be made with 542 flowers?	77 [bouquets]
4	An equilateral triangle has perimeter 36 cm. What is the length of one leg?	12 [cm]
5	A fish forgets a thought every 3 seconds. How many seconds need to pass for a fish to forget 72 thoughts?	216 [seconds]
6	A bag of candy is 50 percent red skittles and 50 percent yellow skittles and weighs 4 pounds. If 4 pounds of purple skittles are added to the bag, what percent of the skittles are red?	25[%]
7	What is the sum of the sixth and seventh Fibonacci numbers?	21
8	What is the probability of flipping a fair coin 3 times and not getting all heads?	7/8
9	What is the radius of a circle with circumference 16π ?	8 [units]
10	Find the fifteenth term in the sequence: -5, 9, -13, 17...	-61

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COLLEGE KNOWLEDGE BOWL ROUND #4 – SET 4

#	Problem	Answer
1	What is 10 percent of 50 percent of 460?	23
2	What is 22 squared plus 17 squared?	773
3	How many different ways can you make an outfit from 8 shirts, 4 jeans, and 2 hats?	64 [outfits]
4	Kailash writes one essay in 45 minutes. If he's been writing for 7 hours, how many complete essays has he written?	9 [essays]
5	What is the next number in the sequence 1, 3, 9, 27, 81, _?	243
6	The perimeter of a rectangle totals 50 cm. If one leg is length 12 cm, what is the area, in square centimeters, of the rectangle?	156 [square centimeters]
7	Find the sum of the mean, median, and mode of the following data set: 1, 7, 11, 7, 14	22
8	What is the probability of 5 tails landing in 5 coin tosses?	1/32
9	In terms of π , what is the area of a circle, in square feet, with radius 24 inches?	4π [square feet]
10	A quadrilateral has sides lengths of 19, 18, 12 and x. If all the sides lengths are counting numbers, what is the positive difference between the smallest and largest value x could be?	47

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COLLEGE KNOWLEDGE BOWL ROUND #5 – SET 5

#	Problem	Answer
1	Kailash reads 1 page of a book every 25 seconds. How long, in seconds, would it take him to read a 532 page book?	13300 [seconds]
2	What is the difference of $\frac{1}{3}$ and $\frac{2}{7}$?	$\frac{1}{21}$
3	Twice my number minus half my number equals 12. What's my number?	8
4	What is the probability of drawing two kings from a standard 52 card deck without replacement?	$\frac{1}{221}$
5	What is the sum of two to the power of 3 plus three squared plus 4?	21
6	A flower takes 18 days to fully bloom. If you plant another flower after the last one bloomed, how many days have passed after 52 flowers have bloomed?	936 [days]
7	What is the volume, in cubic inches, of a cube with surface area of 96 square inches?	64 [cubic inches]
8	What is seventy percent of one thousand twenty?	714
9	What is the largest prime factor of 91 factorial?	89
10	What is the smaller angle between the hands of a clock when the time is 5 o'clock?	150 [°]

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COLLEGE KNOWLEDGE BOWL ROUND #6 – SET 6

#	Problem	Answer
1	How many ways can the letters in the word "TURTLE" be arranged if the first letter must remain a T?	120 [ways]
2	What is the ten-thousandths digit of pi?	5
3	Solve for x if 72x plus 2 equals 0.	$[x=] -\frac{1}{36}$
4	As a decimal, what is 2 percent of 55?	1.1
5	Malala has 3 more cats than goldfish. She has a total of 23 pets. How many goldfish does she own?	10 [goldfish]
6	How many cups are in three gallons?	48 [cups]
7	Martha is 54 years old and her mother is 80, how many years ago was Martha's mother three times her age?	41 [years]
8	Thirty-two bees take 1 hour to make one cup of honey. How many hours does it take 96 bees to make 12 cups of honey?	4 [hours]
9	How many edges does a pyramid with 5 faces have?	8 [edges]
10	Evaluate 42 plus 63 all divided by 5?	21

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COLLEGE KNOWLEDGE BOWL ROUND – EXTRA

#	Problem	Answer
1	Find the slope of the line for the equation three "x" plus four "y" equals 12.	-3/4
2	Evaluate six factorial.	720
3	What is the remainder of 854 divided by 3?	2