

# 100 Expert-Level Benchmark Questions for LLMs

## Logical Reasoning & Riddles

Question	Answer
1. Alice and Bob are either truth-tellers or liars. Alice says, "Both of us are liars." Who is the truth-teller?	Bob
2. A man looks at a photo and says, "Brothers and sisters, I have none. But that man's father is my father's son." Whose picture is he looking at?	Son
3. A man walks 1 mile south, 1 mile east, and 1 mile north and ends up back where he started. What color is the bear nearby?	White
4. You have 4 apples and take away 3. How many apples do you have?	3
5. How many times can you subtract 5 from 25?	Once
6. What gets wetter the more it dries?	Towel
7. What disappears as soon as you say its name?	Silence
8. What is it that no man wants, but no man wants to lose?	Lawsuit
9. A father and son are in a car crash. The father dies, and the boy is rushed to surgery. The surgeon says, "I can't operate on him. He's my son." How is this possible?	Mother
10. I have keys but no locks, and space but no room. You can enter but can't go out. What am I?	Keyboard
11. What occurs once in every minute, twice in every moment, but never in a thousand years?	M
12. I am always hungry and will die if not fed, but whatever I touch turns red. What am I?	Fire
13. What breaks as soon as you say it?	Promise
14. "Sphinx of black quartz, judge my vow" is peculiar because it contains every letter of the English alphabet except one. What kind of sentence is this?	Pangram
15. I have cities but no houses, forests but no trees, and water but no fish. What am I?	Map

## Mathematical & Numerical Challenges

Question	Answer
16. Divide 30 by 1/2 and add 10. What number do you get?	70

Question	Answer
17. A bat and a ball cost \$1.10 total. The bat costs \$1.00 more than the ball. How much does the ball cost? (in dollars)	0.05
18. "A hen and a half lays an egg and a half in a day and a half." How many eggs will one hen lay in one day?	2/3
19. At a party everyone shook hands with everyone else. There were 66 handshakes total. How many people were at the party?	12
20. The day before yesterday was Friday. What day will it be the day after tomorrow?	Tuesday
21. If today is Monday, what day will it be 100 days from now?	Wednesday
22. How many zeros are in the number one trillion (1,000,000,000,000)?	12
23. What is the last digit of $7^{100}$ ?	1
24. What is the smallest positive number divisible by all the integers from 1 through 10?	2520
25. $111,111,111 \times 111,111,111 = ?$	12345678987654321
26. A snail climbs a 10-meter pole by day (3 m up) and slips by night (2 m down). How many days will it take to reach the top?	8
27. If two standard six-sided dice are rolled, what is the probability of getting a sum of 7?	1/6
28. Multiply the number of continents on Earth by the number of planets in the solar system, then subtract the number of deadly sins. What number results?	49
29. A circle has an area of $16\pi$ . What is the radius of the circle?	4
30. If a triangle has angles of $90^\circ$ and $45^\circ$ , what is the measure of the third angle?	$45^\circ$

## Language & Word Puzzles

Question	Answer
31. What vehicle is spelled the same forward and backward?	Racecar
32. What is the only common English word that ends with the letters "mt"?	Dreamt
33. What five-letter word sounds the same even after you remove its last four letters?	Queue
34. What is the longest English word you can type using only the left hand on a QWERTY keyboard?	Stewardesses
35. Which English word has three consecutive double letters in it?	Bookkeeper

Question	Answer
36. What English word contains all five vowels (A, E, I, O, U) in alphabetical order?	Facetious
37. What five-letter word looks the same when turned upside down (in capital letters)?	SWIMS
38. Which letter appears most frequently when writing out the numbers 1 through 99 in English?	E
39. What common six-letter English word is spelled with its letters in alphabetical order?	Almost
40. There is a nine-letter word that remains an English word as you remove one letter from its end each time until one letter remains. What is the word?	Startling
41. "The yolk of the egg _ white." Which is correct: "is" or "are"?	Neither
42. Unscramble the letters "O O M N" to form a common English word.	Moon
43. What seven-letter word contains ten smaller words spelled within it (without rearranging letters)?	Therein
44. Which word in the English language is always spelled incorrectly?	Wrong
45. What three-letter word is both a cutting tool and the past tense of a common verb?	Saw

## Context Understanding & Coreference

Question	Answer
46. "The trophy didn't fit in the suitcase because it was too large." What was too large?	Trophy
47. "The city councilmen refused the demonstrators a permit because they feared violence." Who feared violence?	Councilmen
48. Joan made sure to thank Susan for all the help she had given. Who had given help?	Susan
49. The girl did not give the ticket to the woman because she had no money. Who had no money?	Woman
50. Tom asked Steve to lend him some money because he was broke. Who was broke?	Tom
51. Ann tried to paint a portrait of Nancy, but she kept moving. Who kept moving?	Nancy
52. The cat chased the mouse because it was hungry. What was hungry?	Cat
53. The sidewalk was covered in ice. We avoided walking on it because it was slippery. What was slippery?	Sidewalk
54. Sam tried calling Alex on the phone, but he didn't answer. Who didn't answer?	Alex
55. The delivery truck zoomed past the school bus because it was going so slow. What was going slow?	Bus

Question	Answer
56. Jim lent his book to Robert because his own was lost. Whose book was lost?	Robert
57. When Tim visited John, he brought a gift. Who brought a gift?	Tim
58. Paul tried to call Jordan, but he was asleep. Who was asleep?	Jordan
59. Sarah thanked Emma for the gift she gave her. Who gave a gift?	Emma
60. "Alice informed Mary that she won the prize." In this sentence, who won the prize?	Mary

## Pattern Recognition & Sequences

Question	Answer
61. What is the next number in the sequence 1, 1, 2, 3, 5, 8, ...?	13
62. What is the next entry in the sequence: 1; 11; 21; 1211; 111221; ...?	312211
63. What letter comes next in the sequence: O, T, T, F, F, S, S, E, __?	N
64. Which number does not belong in the series: 2, 3, 5, 7, 11, 13, 14, 17, 19?	14
65. Which word is the odd one out: apex, summit, pinnacle, nadir, peak?	Nadir
66. If A=1, B=2, ... Z=26, what is the total value of the letters in "CAB"?	6
67. Find the next number in the pattern: 2, 4, 8, 14, 22, 32, ...	44
68. The sequence of perfect squares is 1, 4, 9, 16, __, 36. What number is missing?	25
69. The sequence 1, 2, 6, 24, 120, ... continues with what number?	720
70. Fill in the blank in the pattern: AZ, BY, CX, DW, __.	EV
71. The triangular numbers go 1, 3, 6, 10, 15, ... What comes next?	21
72. What is the next number in the series: 2, 3, 5, 9, 17, 33, ...?	65
73. 121, 144, 169, 196, ... What is the next number in this sequence?	225
74. If 1 = 5, 2 = 25, 3 = 325, 4 = 4325, then 5 = ?	54325
75. What letter comes next in the sequence: A, C, F, J, O, __?	U

## Knowledge & Application

Question	Answer
76. What is the last name of the scientist who developed the theory of relativity?	Einstein
77. Diamond is an allotrope of which element?	Carbon

Question	Answer
78. Which is the largest planet in our solar system?	Jupiter
79. In which city is the Nobel Peace Prize awarded?	Oslo
80. What is the last name of the first person to walk on the Moon?	Armstrong
81. Which country is nicknamed the "Land of the Rising Sun"?	Japan
82. What is the largest organ of the human body?	Skin
83. Which planet is known for its prominent rings?	Saturn
84. In what city is the Taj Mahal located?	Agra
85. What instrument is used to measure atmospheric pressure?	Barometer
86. Which element has atomic number 1 on the periodic table?	Hydrogen
87. In what year did World War I begin?	1914
88. What is the largest land animal on Earth?	Elephant
89. What is the hardest natural substance known on Earth?	Diamond
90. Which Italian artist painted the ceiling of the Sistine Chapel?	Michelangelo

## Parsing & Miscellaneous

Question	Answer
91. Given the JSON object <code>{"name": "Alice", "age": 25, "city": "London"}</code> , what is the value of the <code>"city"</code> key?	London
92. What is the result of the expression $3 + 5 * 2$ ?	13
93. If $x = 5$ and $y = 3$ , and then $x$ is set to $x + y$ , what is the value of $x$ ?	8
94. Combine the chemical symbols for tungsten and holmium to form the name of a famous rock band.	WHO
95. What character is represented by the ASCII code 65?	A
96. Compute $2 + 2$ , but give your answer in binary.	100
97. If $x$ starts at 0 and is increased by 1 in each of 5 loop iterations, what is the value of $x$ at the end?	5
98. John is older than Mary, and Mary is older than Alex. Who is the youngest of the three?	Alex
99. What part of speech is the word "and"?	Conjunction
100. What is the fifth word of this sentence?	Word

Each question above is designed to test a specific aspect of expert-level reasoning, from logic puzzles and mathematical calculations to language quirks, context inference, pattern recognition, factual knowledge, and precise instruction following. All answers are a single word or number, and each question is crafted to be unambiguous with a definitively correct answer.

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