



Logic Riddles



30 riddles from easy to tricky. Write your answer on the line. Answers are on the last page.

Easy riddles ★

- 1 Mia is taller than Leo but shorter than Sam. Who is the tallest of the three?
ANSWER _____
- 2 If the day before yesterday was Thursday, what day will it be tomorrow?
ANSWER _____
- 3 What number comes next: 3, 6, 12, 24, ...?
ANSWER _____
- 4 Ana, Ben and Cara each have one pet: a cat, a dog or a goldfish. Ana's pet has no fur. Ben is allergic to cats, so he doesn't have one. Which pet belongs to whom?
ANSWER _____
- 5 You're running a race and you overtake the runner in second place. What place are you in now?
ANSWER _____
- 6 A drawer holds 10 red socks and 10 blue socks, all jumbled together. The lights are off. How many socks must you pull out to be sure you have a matching pair?
ANSWER _____
- 7 Four friends sit in a row on a bench. Zoe sits on the far left. Max sits right next to Zoe. Ivy is not sitting at either end. Where is Kai sitting?
ANSWER _____
- 8 I'm thinking of a number. If you double it and then add 4, you get 20. What is my number?
ANSWER _____
- 9 What letter comes next: J, F, M, A, M, J, J, ...?
ANSWER _____
- 10 Nora has three sisters. Each of her sisters has exactly one brother. How many children are in Nora's family?
ANSWER _____

Medium riddles ★★

- 11 On an island, knights always tell the truth and knaves always lie. You meet Pip and Quinn. Pip says, "We are both knaves." What are Pip and Quinn?
ANSWER _____

- 12 Jo, Kim and Lee sit in a row eating ice cream: one has vanilla, one chocolate and one strawberry. Whoever has strawberry is sitting between Jo and Kim. Jo does not have vanilla. Who has which flavor?

ANSWER _____

- 13 Kenji's watch runs 10 minutes fast, but Kenji believes it runs 5 minutes slow. His watch shows 8:00. What time does Kenji think it is, and what time is it really?

ANSWER _____

- 14 In 2 years, Eli will be twice as old as he was 5 years ago. How old is Eli now?

ANSWER _____

- 15 Treasure is hidden behind one of three doors, and only one of the three signs is true. Door 1: "The treasure is not here." Door 2: "The treasure is not here." Door 3: "The treasure is behind door 2." Where is the treasure?

ANSWER _____

- 16 You have 8 marbles that look exactly alike, but one is slightly heavier. Using a balance scale, what is the smallest number of weighings that is guaranteed to find the heavy marble?

ANSWER _____

- 17 Theo and his twin sister Tess were born just minutes apart, yet Theo was born in 2015 and Tess in 2016. How is that possible?

ANSWER _____

- 18 Ada, Ben, Cleo and Dev ran a race, and nobody tied. Ada finished before Ben. Cleo finished right after Dev. Ben was not last. What was the finishing order?

ANSWER _____

- 19 A snail at the bottom of a 12-meter well climbs 4 meters every day and slides back 3 meters every night. On which day does it reach the top?

ANSWER _____

- 20 What number comes next: 1, 1, 2, 3, 5, 8, 13, ...?

ANSWER _____

Tricky riddles ★★ ★

- 21 Three switches outside a closed room control one old-fashioned light bulb inside. You can flip the switches as much as you like, but you may open the door only once. How do you find out which switch controls the bulb?

ANSWER _____

- 22 Three boxes are labeled "Apples," "Oranges" and "Apples and Oranges." Every label is wrong. You may take out one fruit from one box without looking inside. Which box do you pick from, and how do you fix all the labels?

ANSWER _____

- 23 On the island of knights (who always tell the truth) and knaves (who always lie), Ada says, "Bea is a knave." Bea says, "Ada and Cal are the same type." What is Cal?

ANSWER _____

- 24 In one month, three Sundays fall on even dates. What day of the week is the 20th of that month?

ANSWER _____

- 25 What letter comes next: A, C, F, J, O, ...?

ANSWER _____

- 26 You have a 7-minute sand timer and a 4-minute sand timer. How can you measure exactly 9 minutes?

ANSWER _____

- 27 Mom and Dad weigh 80 kg each, and their two kids weigh 40 kg each. Their rowboat can carry at most 80 kg, and someone has to row it every time. How does the whole family get across the river?

ANSWER _____

- 28 A clock takes 5 seconds to strike 6 o'clock. How long does it take to strike 12 o'clock? (The gaps between chimes are equal, and each chime is instant.)

ANSWER _____

- 29 Of Ann, Bo and Cy, one always tells the truth and the other two always lie. Ann says, "Bo is lying." Bo says, "Cy is lying." Cy says, "Ann and Bo are both lying." Who is the truth-teller?

ANSWER _____

- 30 You have 10 bags of coins. Real coins weigh 10 grams each, but in one bag every coin is a fake that weighs 11 grams. Using a digital scale just once, how can you find the bag of fakes?

ANSWER _____

Answers

Logic Riddles · answer key · print or fold this page away before you hand out the sheet

1. **Sam.** The order from shortest to tallest is Leo, Mia, Sam.
2. **Sunday.** Yesterday was Friday and today is Saturday, so tomorrow is Sunday.
3. **48.** Each number is double the one before it.
4. **Ana has the goldfish, Ben has the dog and Cara has the cat.** The only pet with no fur is the fish, so it's Ana's. Ben can't have the cat, so he has the dog, which leaves the cat for Cara.
5. **Second place.** You took the second-place runner's spot, and the leader is still ahead of you.
6. **Three.** The first two might be one red and one blue, but the third sock has to match one of them.
7. **On the far right.** Zoe takes seat 1 and Max seat 2. Ivy can't be on an end, so she takes seat 3, which leaves seat 4 for Kai.
8. **8.** Take away the 4 to get 16, then halve 16 to get 8.
9. **A.** They are the first letters of the months (January, February, March, April, May, June, July), and next comes August.
10. **Five: four girls (Nora and her three sisters) and one boy, who is a brother to all of them.**
11. **Pip is a knave and Quinn is a knight.** A knight would never call himself a knave, so Pip is lying. Because his statement is false, they are not both knaves, so Quinn must be a knight.
12. **Lee has strawberry, Jo has chocolate and Kim has vanilla.** The strawberry eater sits between Jo and Kim, so it has to be Lee. Jo isn't vanilla, so Jo has chocolate, and Kim gets vanilla.
13. **Kenji thinks it's 8:05, but it's really 7:50.** He adds 5 minutes to "fix" a slow watch, when the watch is actually 10 minutes ahead.
14. **12.** In 2 years he'll be 14, and 5 years ago he was 7. 14 is twice 7.
15. **Behind door 1.** Then sign 1 is false, sign 2 is true and sign 3 is false: exactly one true sign. Behind door 2, signs 1 and 3 would both be true; behind door 3, signs 1 and 2 would both be true.
16. **Two.** Put 3 marbles on each side and keep 2 aside. If the scale balances, weigh the 2 leftover marbles against each other. If one side dips, take those 3 and weigh 1 against 1: the heavier one is it, and if they balance, it's the third.
17. **Theo was born just before midnight on December 31, 2015, and Tess arrived a few minutes later, on January 1, 2016.**
18. **Ada, Ben, Dev, Cleo.** If Dev and Cleo took 1st and 2nd, or 2nd and 3rd, Ben would have to finish after Ada in last place. So Dev and Cleo are 3rd and 4th, and Ada beats Ben to 1st.
19. **Day 9.** Each full day and night gains 1 meter, so the snail starts day 9 at 8 meters. That day it climbs 4 meters and reaches the top before night falls.
20. **21.** Each number is the sum of the two before it, and $8 + 13 = 21$.
21. **Turn on switch 1 for a few minutes, then turn it off and turn on switch 2.** Walk in. If the bulb is on, it's switch 2. If it's off but warm, it's switch 1. If it's off and cold, it's switch 3.
22. **Pick from the box labeled "Apples and Oranges." Its label is wrong, so it holds only one kind of fruit. If you pull out an apple, it's the apple box. The box labeled "Oranges" can't be oranges, and apples are taken, so it's the mixed box, which leaves the box labeled "Apples" holding oranges. If you pull out an orange, swap apples and oranges in that reasoning.**
23. **Cal is a knave.** If Ada is a knight, Bea is a knave, so Bea's words are false and Cal is a different type from Ada: a knave. If Ada is a knave, Bea is a knight, so Bea's words are true and Cal is the same type as Ada: a knave. Either way, Cal is a knave.

- 24. Thursday.** Because Sundays alternate odd and even, three even Sundays need five Sundays that start on an even date, and the only way to fit that into a month is the 2nd, 9th, 16th, 23rd and 30th. The 16th is a Sunday, so the 20th is a Thursday.
- 25. U.** The jumps grow by one each time: 2, 3, 4, 5 letters, so the next jump is 6. O is the 15th letter, and 6 letters later is U, the 21st.
- 26. Start both timers together.** When the 4-minute timer runs out, flip it. When the 7-minute timer runs out, flip it too. One minute later the 4-minute timer runs out again (8 minutes gone). Now flip the 7-minute timer: the 1 minute of sand that just fell runs back, and when it's empty, exactly 9 minutes have passed.
- 27. Both kids row over, and one rows back.** Dad rows over alone, and the other kid rows back. Both kids are now on the starting side, so they repeat it: both kids cross, one comes back, Mom rows over, the other kid comes back, and finally both kids cross together. That's 9 trips.
- 28. 11 seconds.** Six chimes have 5 gaps, so each gap lasts 1 second. Twelve chimes have 11 gaps.
- 29. Bo.** If Ann were the truth-teller, Bo would be a liar, yet his words "Cy is lying" would be true. If Cy were the truth-teller, Ann would be a liar, yet her words "Bo is lying" would be true. With Bo as the truth-teller everything fits: Cy really is lying, and Ann's and Cy's statements are both false.
- 30. Take 1 coin from bag 1, 2 coins from bag 2, and so on up to 10 coins from bag 10, and weigh them all together.** If every coin were real, that would be 550 grams. Each extra gram is one fake coin, so a reading of 557 grams means bag 7 holds the fakes.

Need a hint? Every riddle has one at riddlepedia.com/logic-riddles/, where you can also play them as a game.