

Space & Time BrainTeasers

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Direction

Pitcher throws baseball

A pitcher throws a baseball 90 mph. The ball comes to a complete stop and returns directly to the pitcher. How is this possible?

- Potential Answers
 - Someone caught the ball and threw it back.
 - The ball was attached to an elastic band or bounced off of something.
- Faulty Assumption
 - Assuming that the pitcher threw the ball in a *horizontal* direction.



- Correct Answer
 - The pitcher threw the ball *vertically*, straight up into the air. At its maximum height, it slowed to a complete stop, then gravity returned it straight down, directly to the pitcher.

Retrieve ring from bottle

How would you retrieve a ring from a wine bottle without removing the cork?

- Potential Answers
 - Break the bottle.
 - Drill a hole in the bottle.
- Faulty Assumption
 - Assuming that since the cork can't be removed by pulling it *out*, it must remain in the neck of the bottle.



- Correct Answer
 - Push the cork *into* the bottle so it falls to the bottom. Then turn the bottle over and shake out the ring.

Woman drives home

A California woman drives to Texas. She then drives in the same direction to return home. How is this possible?

- Potential Answers
 - Her home is not in California.
 - She drove completely around the globe.
- Faulty Assumption
 - Assuming she started from California and drove *east* to Texas.
- Correct Answer
 - She started from Florida, drove *west* to Texas, then continued *west* to California.
 - (Feel free to change the locations to suit your audience.)



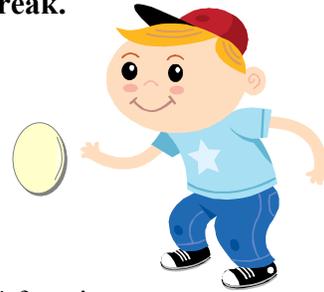
Location

Boy drops egg

A boy drops an egg 4 feet over a cement sidewalk, but it doesn't break.

Why not?

- Potential Answers
 - The egg was hardboiled.
 - The egg hit the boy's foot and rolled off.
- Faulty Assumption
 - Assuming the egg hits the cement after falling 4 feet.
- Correct Answer
 - He dropped the egg from 5 feet above the sidewalk, so after falling 4 feet, it hadn't yet broken. Alternate: He caught the egg 1 foot above the sidewalk.



Man falls off ladder

An elderly man falls off a 30 ft. ladder but doesn't get hurt. Why not?

- Potential Answers
 - He fell onto a soft surface or is a tough guy.
 - He fell into a swimming pool or other body of water.
- Faulty Assumption
 - Assuming the man was at or near the top of the ladder.
- Correct Answer
 - The man was standing on the bottom rung, so he didn't have far to fall. Alternate: The man was standing on the ladder while it lay on the ground.



Car with flat wins race

A car wins a road race, even though it drove the last half of the race with a flat tire. How is this possible?

- Potential Answers
 - The other cars also got flats.
 - The other cars had other troubles and didn't finish the race.
- Faulty Assumption
 - Assuming the winning car drove on its flat tire.
- Correct Answer
 - The driver installed the spare tire, then carried the flat tire in the trunk for the remainder of the race.



Car passes cop at red light

A car passes a cop at a red light but doesn't get a ticket. Why not?

- Potential Answers
 - The cop wasn't paying attention or didn't see the car.
 - The cop was on a break or ending a shift and didn't want to bother.
- Faulty Assumption
 - Assuming the car went through the red light.
- Correct Answer
 - The car went through the green light, passing the cop who was stopped on the cross street for the red light.



Date

Days in months

Seven months have 31 days. Four months have 30 days. How many months have 28 days?

- Potential Answer
 - One month: February, except in a Leap Year when it has 29 days.
- Faulty Assumption
 - Since February normally has 28 days, it's the assumed answer. Also since $Seven + four = 11$ months, it implies only 1 month remains.
- Correct Answer
 - All months have 28 days (and most have more!).



Christmas / New Year's

In what year did Christmas and New Year's occur in the same year?

- Potential Answers
 - Any single year.
- Faulty Assumption
 - The phrase "what year" implies a single answer. Since these holidays are usually celebrated sequentially a week apart, we assume consecutive years.
- Correct Answer
 - Every year in January and December.*



Boy's age span

Two days ago a boy was age 9. Next year he'll be age 12. How is this possible?

- Potential Answers
 - It was discovered that his original birthdate was wrongly recorded.
 - His culture uses a different numbering system or calendar.
- Faulty Assumption
 - Assuming that "two days ago" is in the current year, which would make the boy 10 the next year.
- Correct Answer
 - Today is January 1. Two days ago, on Dec. 30, the boy was 9. On Dec. 31, he turned 10. This year he'll turn 11. Next year he'll turn 12.



To illustrate:

Year:	<u>1990</u>	<u>1991</u>	<u>1992</u>
Day:	12/30 12/31	1/1 12/31	12/31
Age:	9 10	Today 11	12

Time

Dog & speeding car

A black dog sleeps in the middle of an intersection under a broken street lamp. A car without headlights speeds towards the dog but doesn't hit it. Why not?

- Potential Answers
 - The dog heard the car, woke up, and moved out of the way.
 - The driver turned at the intersection before reaching the dog.
- Faulty Assumption
 - Assuming it was nighttime with no lights and the dog couldn't be seen by the driver.
- Correct Answer
 - It was daytime. The driver saw the dog and swerved around it.



Walking without umbrella

A woman went for a walk but forgot her umbrella. Why didn't she get wet?

- Potential Answers
 - She was wearing a raincoat.
 - She ducked under a shelter.
- Faulty Assumption
 - Assuming it was raining at the time of her walk.
- Correct Answer
 - It wasn't raining.