

The Billiard That Doesn't Belong



On a pool table are 12 balls of identical size. All are of the same weight except one, which is slightly heavier than each of the others, but not enough for you to be able to tell just by holding it.

Your challenge is to locate the one ball that is more dense than the others.

You have been provided with a balance scale and are allowed just three weighings.

Can you find the one ball that does not belong?

- Step 1:** Split the balls into two groups of six and place them on the scales. Take the six lighter balls and set them aside, focus on the six heavier balls.
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- Step 2:** Split the six heavier balls into two groups of three and place them on scales. Again, focus on the heavier grouping of three balls.
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- Step 3:** Of the three remaining balls, select two of them and place one on each side of the scale. If the scale is uneven the dense ball is the heavier of the two. If balanced the dense ball is the one that was not weighed.
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