

# Heavy Pill

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We have 5 identical bottles of identical pills. Each pill weighs 10 grams, except for contaminated pills in one bottle, where each pill weighs 9 grams. We can only use the measurement scale once, how would you find the heavy bottle?

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Takeout:

1 pill from Bottle 1 → 10g  
2 pills from Bottle 2 → 20g  
3 pills from Bottle 3 → 30g  
4 pills from Bottle 4 → 40g  
5 pills from Bottle 5 → 50g

Put all 15 pills on scale (1+2+3+4+5)  
Correct weight should be 150g

If actual weight is 149, then Bottle 1  
If actual weight is 148, then Bottle 2  
If actual weight is 147, then Bottle 3  
If actual weight is 146, then Bottle 4  
If actual weight is 145, then Bottle 5

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Takeout:

1 pill from bottle 1

2 pills from bottle 2

...

...

...

If all pills weighed 1 gram, scale  
should read 55 grams

If pills weighed 55.3 grams,  
then Bottle #3 would have  
the heavy pills.

Weight - 55 grams

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0.1 grams