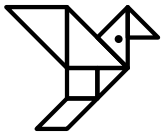


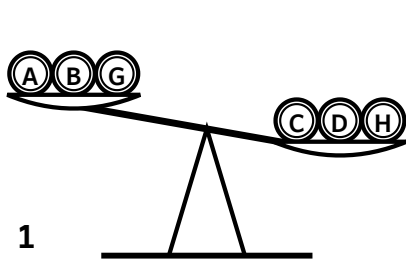


Learn a new puzzle

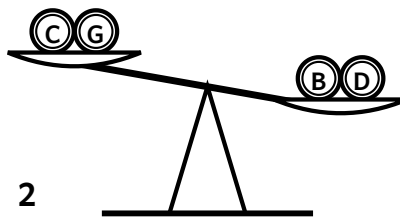
Weighing Puzzles



One coin is fake and lighter. The heavy side goes down.



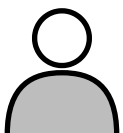
1



2

Which coin is fake? _____

- 1 Level scale: every coin on it is real.
- 2 A lighter fake makes its side go UP.
- 3 Cross out every coin you know is real.



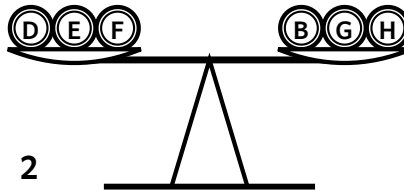
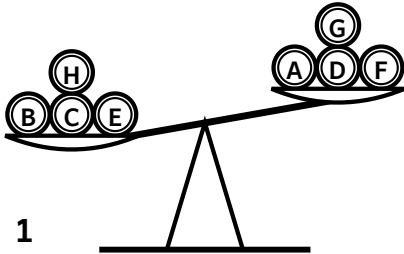
Ask: which side went up?



1 Weighing Puzzles One coin is fake and lighter. The heavy side goes down.



(A) (B) (C) (D) (E) (F) (G) (H)

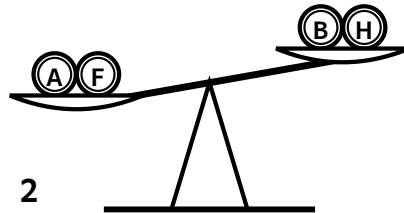
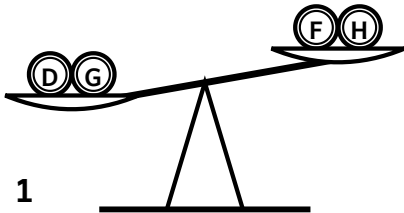


Which coin is fake? _____

2 Weighing Puzzles One coin is fake and lighter. The heavy side goes down.



(A) (B) (C) (D) (E) (F) (G) (H)

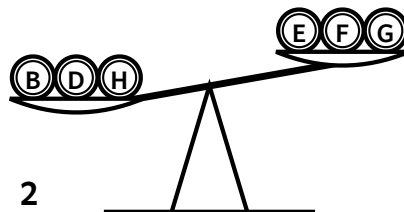
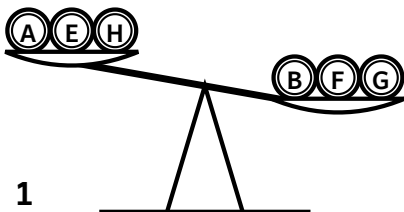


Which coin is fake? _____

3 Weighing Puzzles One coin is fake and lighter. The heavy side goes down.



(A) (B) (C) (D) (E) (F) (G) (H)



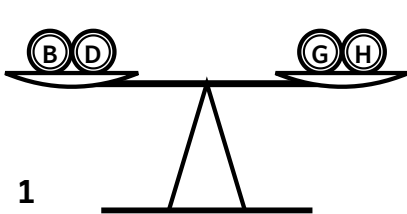
Which coin is fake? _____



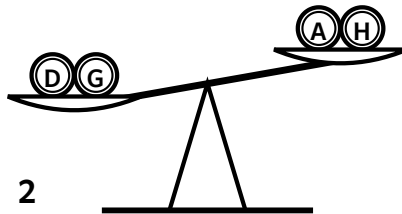
4 Weighing Puzzles One coin is fake and lighter. The heavy side goes down.



A B C D E F G H



1



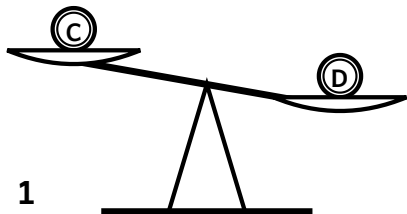
2

Which coin is fake? _____

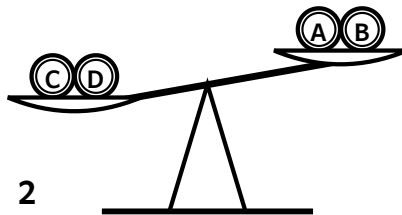
5 Weighing Puzzles One coin is fake: heavier or lighter. The heavy side goes down.



A B C D



1



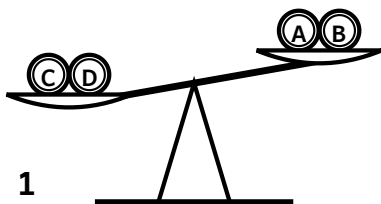
2

Which coin is fake? Is it heavier or lighter? _____

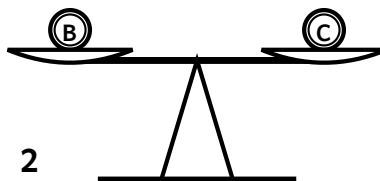
6 Weighing Puzzles One coin is fake: heavier or lighter. The heavy side goes down.



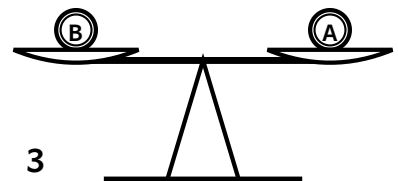
A B C D



1



2



3

Which coin is fake? Is it heavier or lighter? _____

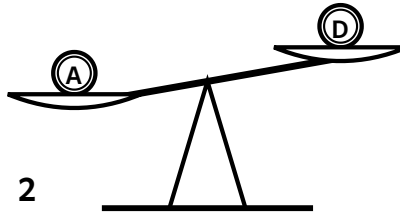
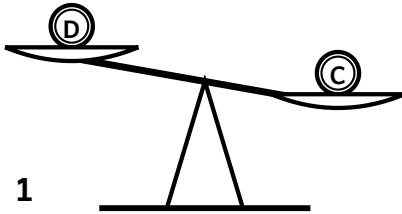


7 Weighing Puzzles

One coin is fake: heavier or lighter. The heavy side goes down.



(A) (B) (C) (D)



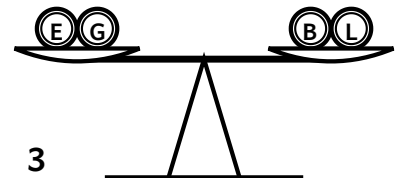
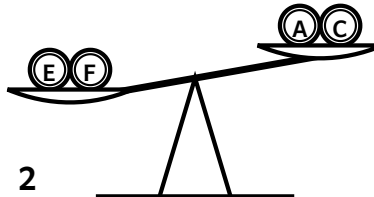
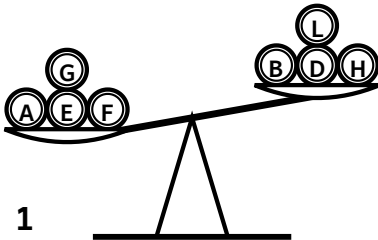
Which coin is fake? Is it heavier or lighter? _____

8 Weighing Puzzles

One coin is fake: heavier or lighter. The heavy side goes down.



(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L)



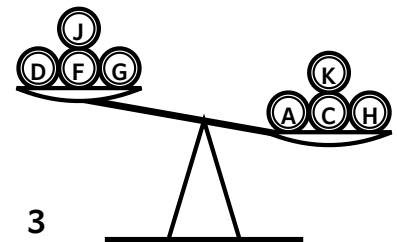
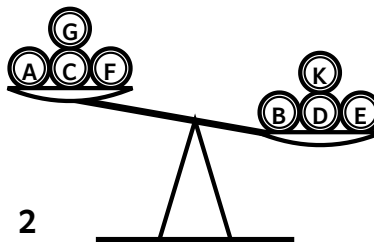
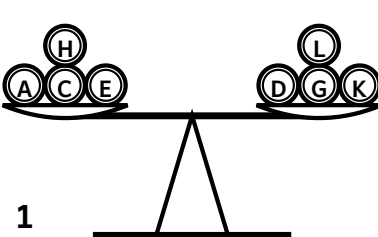
Which coin is fake? Is it heavier or lighter? _____

9 Weighing Puzzles

One coin is fake: heavier or lighter. The heavy side goes down.



(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L)



Which coin is fake? Is it heavier or lighter? _____

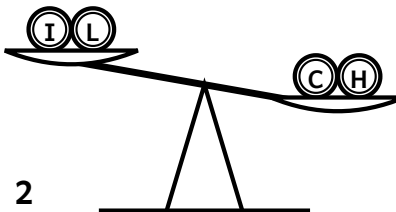
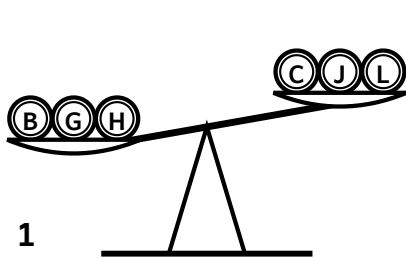


10 Weighing Puzzles

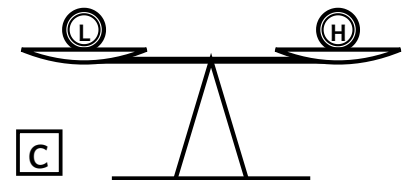
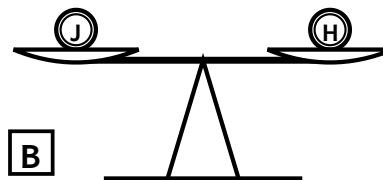
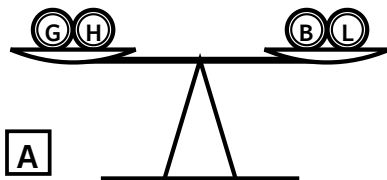
One coin is fake: heavier or lighter. The heavy side goes down. Pick the next weighing that tells you the coin, and heavier or lighter, whatever the scale shows.



A B C D E F G H I J K L



Which next weighing is sure to tell you? Choice _____





Answers For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn · Weighing Puzzles

Coin G

#1

Coin A

Scale 1 tips; scale 2 is level, so its coins are real. Fake: coin A (lighter).

#2

Coin H

Scale 1 tips; scale 2 tips. Fake: coin H (lighter).

#3

Coin E

Scale 1 tips; scale 2 tips. Fake: coin E (lighter).

#4

Coin A

Scale 1 is level, so its coins are real; scale 2 tips. Fake: coin A (lighter).

#5

Coin D, heavier

Scale 1 tips; scale 2 tips. Fake: coin D (heavier).

#6

Coin D, heavier

Scale 1 tips; scale 2 is level, so its coins are real; scale 3 is level, so its coins are real. Fake: coin D (heavier).

#7

Coin D, lighter

Scale 1 tips; scale 2 tips. Fake: coin D (lighter).

#8

Coin F, heavier

Scale 1 tips: a heavier fake is on the down side, a lighter one on the up side: coin A, E, F or G heavier, or coin B, D, H or L lighter. Scale 2 tips: coin E or F heavier. Scale 3 is level, so its coins are real. Fake: coin F (heavier).

#9

Coin F, lighter

Scale 1 is level, so its coins are real: coin B, F, I or J heavier, or coin B, F, I or J lighter. Scale 2 tips: a heavier fake is on the down side, a lighter one on the up side: coin B heavier, or coin F lighter. Scale 3 tips. Fake: coin F (lighter).

#10

Choice B

After scales 1 and 2, it could be coin H heavier, or coin L lighter. Choice B is sure: if it is level, coin L, lighter; if the right side goes down, coin H, heavier. Choice A is not: if the left side goes down, it could still be coin H heavier, or coin L lighter. Choice C is not: if the right side goes down, it could still be coin H heavier, or coin L lighter.