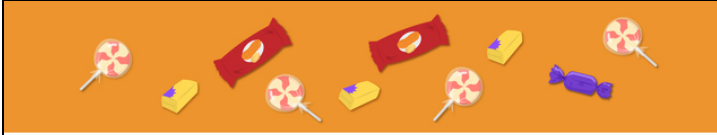


Worksheets to print out from [sofatutor.com](https://www.sofatutor.com)

Compound Probability With and Without Replacement



$P(\text{🍫 and then 🍭}) = \frac{1}{5} \times \frac{2}{5} = \frac{2}{25}$

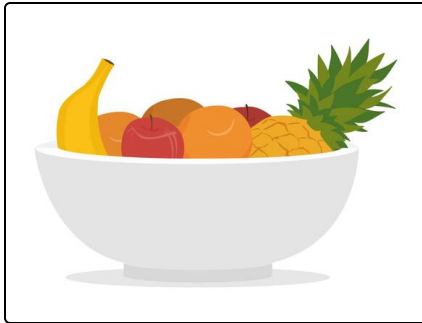
- 1 Finding independent probability.
- 2 What is dependent probability?
- 3 Finding dependent probability.
- 4 Work out the mixed probability questions.
- 5 Calculate dependent probability.
- 6 Finding dependent probabilities.
- + with many hints, answer keys, and solution approaches for all tasks



The complete package, including all tasks, hints, solutions, and solution approaches, is available to all subscribers of [sofatutor.com](https://www.sofatutor.com)

Finding independent probability.

Choose the answer from below.



Isaac has a bowl with 10 pieces of fruit in it.

- 4 apples
- 3 oranges
- 2 pears
- 1 banana

Calculate the probability of Isaac picking an apple, **replacing it**, then picking a banana.

$\frac{4}{100} = \frac{1}{25}$ **A**

$\frac{4}{10} = \frac{2}{5}$ **B**

$\frac{5}{100} = \frac{1}{20}$ **C**

$\frac{5}{10} = \frac{1}{2}$ **D**

Our hints for the tasks

1
from 6

Finding independent probability.

1. Hint

We calculate the probabilities separately first.

Probability of picking an apple is $\frac{\text{Apples}}{\text{Total}}$

We multiply this by the second probability when the apple **has been replaced**.

Probability of picking a banana is $\frac{\text{Bananas}}{\text{Total}}$

2. Hint

$$\frac{3}{5} \times \frac{1}{5} = \frac{3}{25}$$

We multiply probabilities like this:

Solutions and solution approaches for the tasks

1
from 6

Finding independent probability.

Answer key: A

$$\frac{4}{10} \times \frac{1}{10} = \frac{4}{100}$$

$$\frac{4}{100}$$

The apple **was** replaced, so there were still 10 pieces of fruit in the bowl.

- There are 4 apples out of 10 pieces of fruit in the bowl
 - We write this as $\frac{4}{10}$
 - The apple is replaced into the bowl
 - There is only 1 banana in the bowl, so we write this as $\frac{1}{10}$
- Multiply the numerators, 4 apples by the 1 banana = 4
 - Multiply the denominators, 10 total pieces of fruit and 10 total pieces of fruit = 100