19.

Answer

$15\text{ p} = 15 \times 1\text{ p}$
$15\text{ p} = 7 \times 2\text{ p} + 1 \times 1\text{ p}$
$15\text{ p} = 6 \times 2\text{ p} + 3 \times 1\text{ p}$
$15\text{ p} = 5 \times 2\text{ p} + 5 \times 1\text{ p}$
$15\text{ p} = 4 \times 2\text{ p} + 7 \times 1\text{ p}$
$15\text{ p} = 3 \times 2\text{ p} + 9 \times 1\text{ p}$
$15\text{ p} = 2 \times 2\text{ p} + 11 \times 1\text{ p}$
$15\text{ p} = 1 \times 2\text{ p} + 13 \times 1\text{ p}$

Number of ways = 8

Answer: D 1

Total: 1

Method

Start by with $15 \times 1\text{ p} = 15\text{ p}$

Now work out the number of ways of making 15 p with a mixture of 1 p and 2 p coins.

$7 \times 2\text{ p} = 14\text{ p}$, so you need one 1 p coin to make 15 p.

$6 \times 2\text{ p} = 12\text{ p}$, so you need $3 \times 1\text{ p}$ to make 15 p.

Carry on decreasing the number of 2p coins by 1 each time. You will need two more 1 p coins each time to make 15 p, as shown in the working above.

The final line has $1 \times 2\text{ p} = 2\text{ p}$, so you need $13 \times 1\text{ p}$ to make 15 p.

You had 1 way to start with, plus 7 ways with both coins, making 8 ways in total.

So, the answer is D: 8.

Top Tip

Make sure you know how to work with money. This is so important in your everyday life and money questions often come up on 11+ papers.

£1 = $2 \times 50\text{ p} = 5 \times 10\text{ p} = 20 \times 5\text{ p} = 50 \times 2\text{ p} = 100 \times 1\text{ p}$