

13. (a) Peter chooses a number, subtracts 7 from it and then divides by 3  
The result is 10  
What is the number he chooses?

Answer: ..... (2)

- (b) Penny chooses a number  $n$ , multiplies it by 5 and then subtracts 9

(i) Write an expression, in terms of  $n$ , to show Penny's result.

Answer: ..... (2)

Sally chooses the same number  $n$ , adds 3 and then multiplies by 2

(ii) Write an expression, in terms of  $n$ , to show Sally's result.

Answer: ..... (2)

Penny and Sally discover that they have the same result.

(iii) Write down an equation, in terms of  $n$ , to show this.

Answer: ..... (1)

(iv) Solve the equation to find which number they both choose.

Answer:  $n =$  ..... (2)

(Total marks: 100)