

Name:

Exam Style Questions

## Think of a Number



Equipment needed: Calculator, pen

### Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

Video 116b



Answers and Video Solutions



1. Ava thinks of a number.



She multiplies it by 3.  
Then she adds 9.  
Her answer is 45

What was the number Ava started with?

.....  
(2)

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2. Jack thinks of a number.



He multiplies it by 4 and then adds 5  
His answer is 33

Was number is he thinking of?

.....  
(2)

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3. Danielle thinks of a number.



She subtracts 11 and then multiplies by 7  
Her answer is 77

What number is she thinking of?

.....  
(2)

4. Leon thinks of a number.



He adds 1 and then multiplies it by 3.  
His answer is 90.

What was his number?

.....  
(2)

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5. Amir thinks of a number.



He subtracts 6 from it and then divides by 2.  
His answer is 16.

What was the number?

.....  
(2)

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6. Lauren thinks of a number.



She divides by 8 and then multiplies by 5.  
Her answer is 45

What number is she thinking of?

.....  
(2)

7. Marta thinks of a number.



She multiplies by 27 and then subtracts 51.  
Her answer is 1110.

What was the number?

.....  
(2)

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8. I think of a number, add 3 and then multiply by 8



The answer is 58

What was the number?

.....  
(2)

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9. Harry thinks of a number.



He divides his number by 4.  
Harry then subtracts 1.  
He then multiplies his result by 6.  
His final answer is 72.

What was the number Harry first thought of?

.....  
(3)

10. Jemimah thinks of a positive number.



She squares the number and then subtracts 4.  
Her answer is 60.

What was the number?

.....  
(2)

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11. Leo thinks of a number.



He finds the square root and then adds 10.  
His answer is 35

What number is she thinking of?

.....  
(2)

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12. Isabelle thinks of a number.



She cubes the number and then finds the square root.  
Her answer is 27.

What number was Isabelle thinking of?

.....  
(2)

13. Joanne thinks of a number.



She multiplies it by 2.  
Then she adds 10.  
Her answer is 4

What was the number Joanne started with?

.....  
(2)

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14. Jonathan thinks of a number.



He multiplies it by  $-7$  and then subtracts 5  
His answer is 51

Was number is he thinking of?

.....  
(2)

15. Erin thinks of a whole number.



She adds 8 and then multiplies it by 3.  
She round her answer to the nearest 10.  
The result is 80.

Write all the possible numbers that Erin could have started with.

.....  
**(3)**

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16. Alex thinks of a number.



He multiplies it by 20 and then adds 30.  
The answer is 570

George thinks of the same number as Alex.  
He subtracts 14 and then multiplies by 5.  
His final answer is  $y$ .

Work out George's final answer,  $y$ .

$y = \dots\dots\dots$   
**(3)**

17. Hannah and Frankie think of the same number.



Hannah divides her number by 7 and then adds 3.  
Her answer is 6.

Frankie subtracts 9 and then squares.  
Her final answer is  $x$ .

Find Frankie's final answer,  $x$ .

$x = \dots\dots\dots$   
**(3)**

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18. Adele thinks of a number.



She multiplies the number by 6 and then subtracts 80 from the result.  
Her answer equals the number she started with.

What was the number Adele started with?

$\dots\dots\dots$   
**(3)**



19. Hester thinks of a number.



She multiplies the number by 3 and then subtracts 26 from the result.  
Her answer equals the number she started with.

What was the number Adele started with?

.....  
(3)

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20. Reece thinks of a number.



He adds a third of the number to a quarter of the number.  
His answer is 35.

What was the number Reece first thought of?

.....  
(3)


21. Eddie thinks of an algebraic expression.



He multiplies by 3 and then subtracts 8.  
His answer is  $n$

Find the algebraic expression that Eddie thought of.

.....  
**(3)**

22. Barry thinks of a number.  
He applies an operation to that number.  
 Barry then applies a different operation to the result.  
Finally he applies another operation to obtain his final result.

Barry has a choice of 3 operations, A, B and C.

Operation A: multiply by 3

Operation B: subtract 8

Operation C: add 20

(a) Barry thinks of the number 10 and applies operations B then A then C  
What is his final result.

.....  
(2)

(b) In how many different ways can Barry apply the 3 operations?

.....  
(2)

(c) If Barry thinks of the number 10, what order should he carry out the 3 operations to get the largest possible final answer?

Operation..... then Operation..... then Operation.....  
**(4)**