Output numbers are produced from input numbers by using a certain rule. Work out the rule each time and enter the correct number in the box. A different rule is used for each question.

1

Input		Output
2	→	7
5	→	10
10	→	15
14	→	☐

2

Input		Output
1	→	5
4	→	20
7	→	35
10	→	☐

3

Input		Output
3	→	1
15	→	5
21	→	7
30	→	☐

4

Input		Output
5	→	11
8	→	17
10	→	21
12	→	☐

Supply the missing numbers.

5 $12 + 14 = 20 + 2 +$ ☐

6 $18 + 19 = 20 +$ ☐ $+ 9$

7 $27 + 25 = 40 +$ ☐ $+ 5$

8 $56 + 33 = 80 + 6 +$ ☐

9 What are the three factors of 9?

☐ ☐ ☐

10 What are the four factors of 15?

☐ ☐ ☐ ☐

11 12 has six factors. Enter them in the boxes.

☐ ☐ ☐ ☐ ☐ ☐

In each line below circle 2 numbers which are factors of 24.

12	4	5	10	12	16
13	2	7	8	14	20
14	1	9	18	20	24

Supply the missing multiples in each line.

15	0	4	8	12	16	☐	☐
16	0	10	20	☐	40	☐	60
17	0	7	☐	21	28	☐	42
18	0	☐	18	27	☐	45	54

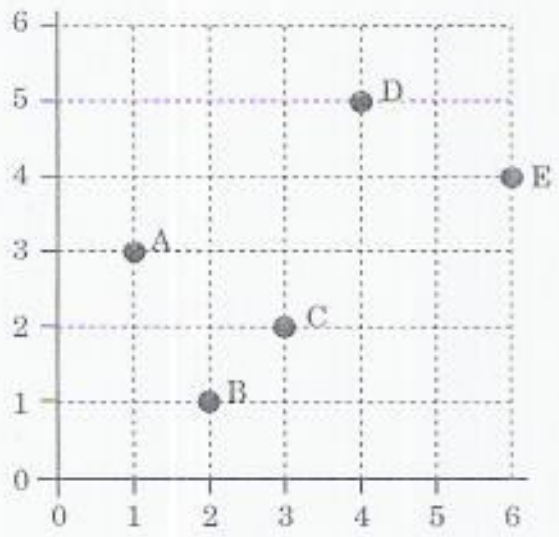
Put the correct numbers in the boxes.

19 $5 \times 16 = 10 \times$ ☐

20 $2 \times 12 = 4 \times$ ☐

21 $1 \times 18 = 2 \times$ ☐

22 $50 \times 40 = 100 \times$ ☐



The letter A is at (1, 3). Give the co-ordinates for the following.

23 Letter B (_____ , _____)

24 Letter C (_____ , _____)

25 Letter D (_____ , _____)

26 Letter E (_____ , _____)

If $25 \times 6 = 150$

27 then $150 \div$ ☐ $= 25$

28 and $25 =$ ☐ $\div 6$

If $306 \div 18 = 17$

29 then $306 \div 17 =$ ☐

30 and $17 \times 18 =$ ☐

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31 $2^2 =$ ☐

32 $6^2 =$ ☐

33 $6^2 - 2^2 =$ ☐

34 $6^2 + 2^2 =$ ☐

35 $6^2 \div 2^2 =$ ☐

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36 $\sqrt{64} =$ ☐

37 $\sqrt{81} =$ ☐

38 $\sqrt{121} =$ ☐

Circle the prime number in each line.

39 4 6 8 9 13 16

40 20 21 24 25 27 29

41 40 42 43 45 46 49

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42 Multiply 9 by 7 and take-away 4. ☐

43 Divide 15 by 3 and multiply by 8. ☐

44 Take 25 from 74 and divide by 7. ☐

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45 $35 \div x = 7$
What is the value of x? ☐

46 $y - 14 = 31$
What is the value of y? ☐

47 $3z - 14 = 10$
What is the value of z? ☐

$a = 3 \quad b = 7 \quad c = 8$
Calculate the following.

48 $a(b+c) =$ ☐

49 $ab+c =$ ☐

50 $b(c-a) =$ ☐