

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	Input	Output
	2	→ 7		1	→ 5
	5	→ 10		4	→ 20
	10	→ 15		7	→ 35
	14	→ <input type="text"/>		10	→ <input type="text"/>

3	Input	Output	4	Input	Output
	3	→ 1		5	→ 11
	15	→ 5		8	→ 17
	21	→ 7		10	→ 21
	30	→ <input type="text"/>		12	→ <input type="text"/>

Supply the missing numbers.

5 $12 + 14 = 20 + 2 + \square$

6 $18 + 19 = 20 + \square + 9$

7 $27 + 25 = 40 + \square + 5$

8 $56 + 33 = 80 + 6 + \square$

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

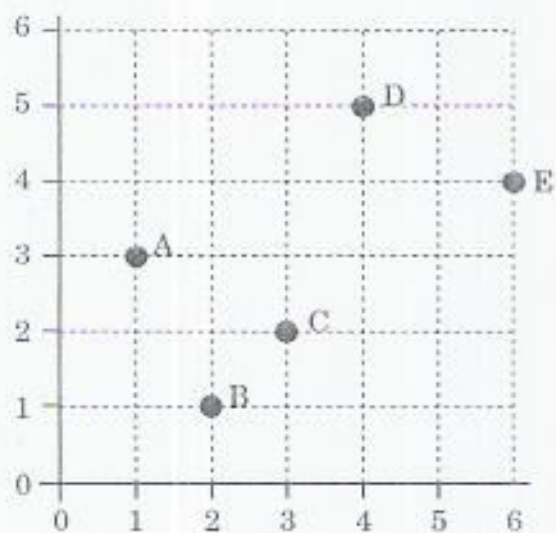
Put the correct numbers in the boxes.

19 $5 \times 16 = 10 \times \square$

20 $2 \times 12 = 4 \times \square$

21 $1 \times 18 = 2 \times \square$

22 $50 \times 40 = 100 \times \square$



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 $150 \div \square = 25$

28 and $25 = \square \div 6$

If $306 \div 18 = 17$

29 then $306 \div 17 = \square$

30 and $17 \times 18 = \square$

31 $2^2 = \square$

32 $6^2 = \square$

33 $6^2 - 2^2 = \square$

34 $6^2 + 2^2 = \square$

35 $6^2 \div 2^2 = \square$

36 $\sqrt{64} = \square$

37 $\sqrt{81} = \square$

38 $\sqrt{121} = \square$

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

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.

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?

$a = 3$ $b = 7$ $c = 8$

Calculate the following.

48 $a(b+c) =$

49 $ab+c =$

50 $b(c-a) =$