

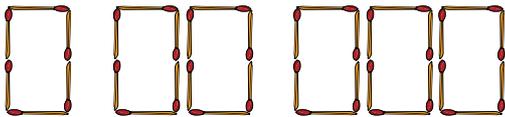
Year 7 Class 15 questions

Q1

Describe the pattern : 81, 93, 105, 117, 129

The pattern is by
increasing 12
increasing decreasing

Q2



Complete the table.

No. of shapes	1	2	3
No. of matches	6	<input type="text"/>	<input type="text"/>

No. of matches : 6, 12, 18

Q3

Choose the algebraic expression for **d** divided by **a**

- $\frac{a}{d}$
 $\frac{d}{a}$
 $a-d$
 $a+d$

Q4

If $x = 11$, then find the value of $6x + 1$.

67

Q5

If $m = 5$ and $n = 3$, find the value of $100m + 10n$.

530

Q6

Describe the pattern : 28, 58, 88, 118, 148

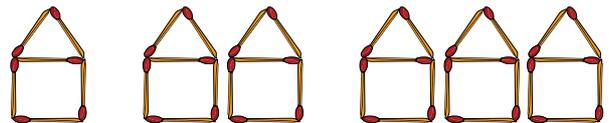
The pattern is by
increasing 30
increasing decreasing

Q7

Describe the pattern : 92, 78, 64, 50, 36

The pattern is by
decreasing 14
increasing decreasing

Q8



Complete the table.

No. of houses	1	2	3	4	<input type="text"/>
No. of matches	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	36

6 12 18 24

6

Q9



Complete the table.

No. of triangles	1	2	3	10	<input type="text"/>
No. of matches	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	36

3 6 9 30

12

Q10

Choose the algebraic expression for **6 more than the product of m and y**

- $6 + m + y$ $6(m + y)$
 $6my$ $6 + my$

Q11

Choose the algebraic expression for **the square root of b**

- b^2 $\frac{b}{2}$ \sqrt{b} $2b$

Q12

If $a = 3$, find the value of $2a^2$.

18

Q13

If $a = 3$, find the value of $2a^2 - 10$.

8

Q14

If $m = 5$ and $n = 3$, find the value of $8m - n^2$.

31

Q15

If $a = 6$ and $b = -8$, find the value of $\frac{4a}{3b}$.

-1

Q16

Describe the pattern : 764, 899, 1034, 1169, 1304

The pattern is by
 increasing decreasing 135

Q17

Describe the pattern : 1763, 1601, 1439, 1277, 1115

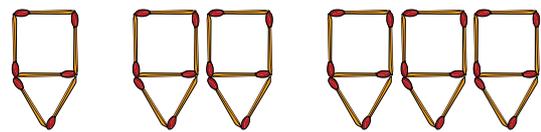
The pattern is by
 decreasing 162
 increasing decreasing

Q18

Which pattern is increasing by 36?

- 4, 40, 78, 118, 160
 19, 55, 108, 214, 306
 22, 58, 94, 130, 166
 35, 71, 143, 285, 569

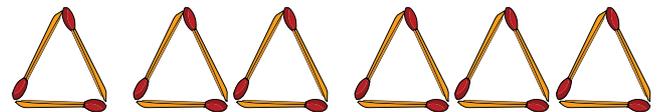
Q19



No. of matchsticks = No. of shapes 6
 4 5 6 7

Q20

How many matchsticks are needed to make 12 triangles in this pattern?



No. of matchsticks = 36

Q21

How many matchsticks are needed to make 10 stars in this pattern?



No. of matchsticks = 80

Q22

Choose the algebraic expression for
**add c and 5, then divide the
result by 2**

- $\frac{c-5}{2}$ $\frac{c+5}{2}$ $c-5$ $5-c$

Q23

Choose the algebraic expression for
**the total cost in cents of m apples at
 x cents each, p oranges at y cents each,
and q mangoes at r dollars each**

- $\$(mx + yp + qr)$
 $(mx + py + 10qr)$ cents
 $(100mx + py + 100qr)$ cents
 $(mx + py + 100qr)$ cents

Q24

Write the algebraic expression for
multiply x by 2 then add 5.

$2x+5$

Q25

If $a = 3$, find the value of $6 + 5a - 2$.

19

Q26

If $n = 5$, then find the value of $n^2 + 2n$.

35

Q27

If $s = 3$, then find the value of $5s - s^2 + 2$.

8

Q28

If $m = 5$ and $n = 3$, find the value of $\frac{m^2 - 5}{mn + 5}$.

1

Q29

If $a = 0.4$, $b = -0.5$ and $c = -3$, find the
value of $\frac{5a + 4b}{c}$. 0

Q30

If $a = 5$ and $b = 6$, find the value of $\sqrt{(2a + b)}$.

4