

Counting of Figures

आकृति गिनना



Part-२

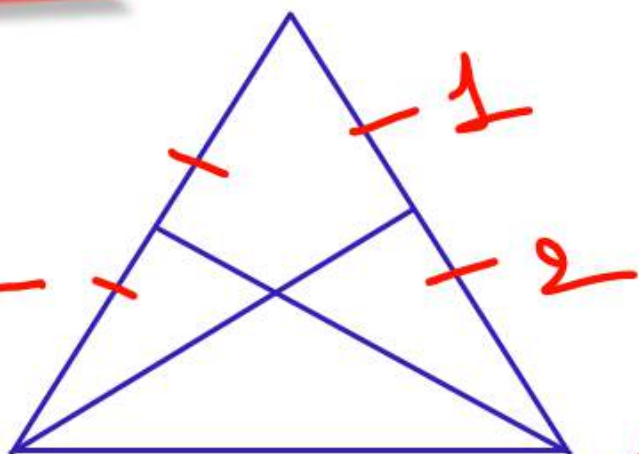
TYPE – 5

TRIANGLE (ত্রিভুজ)



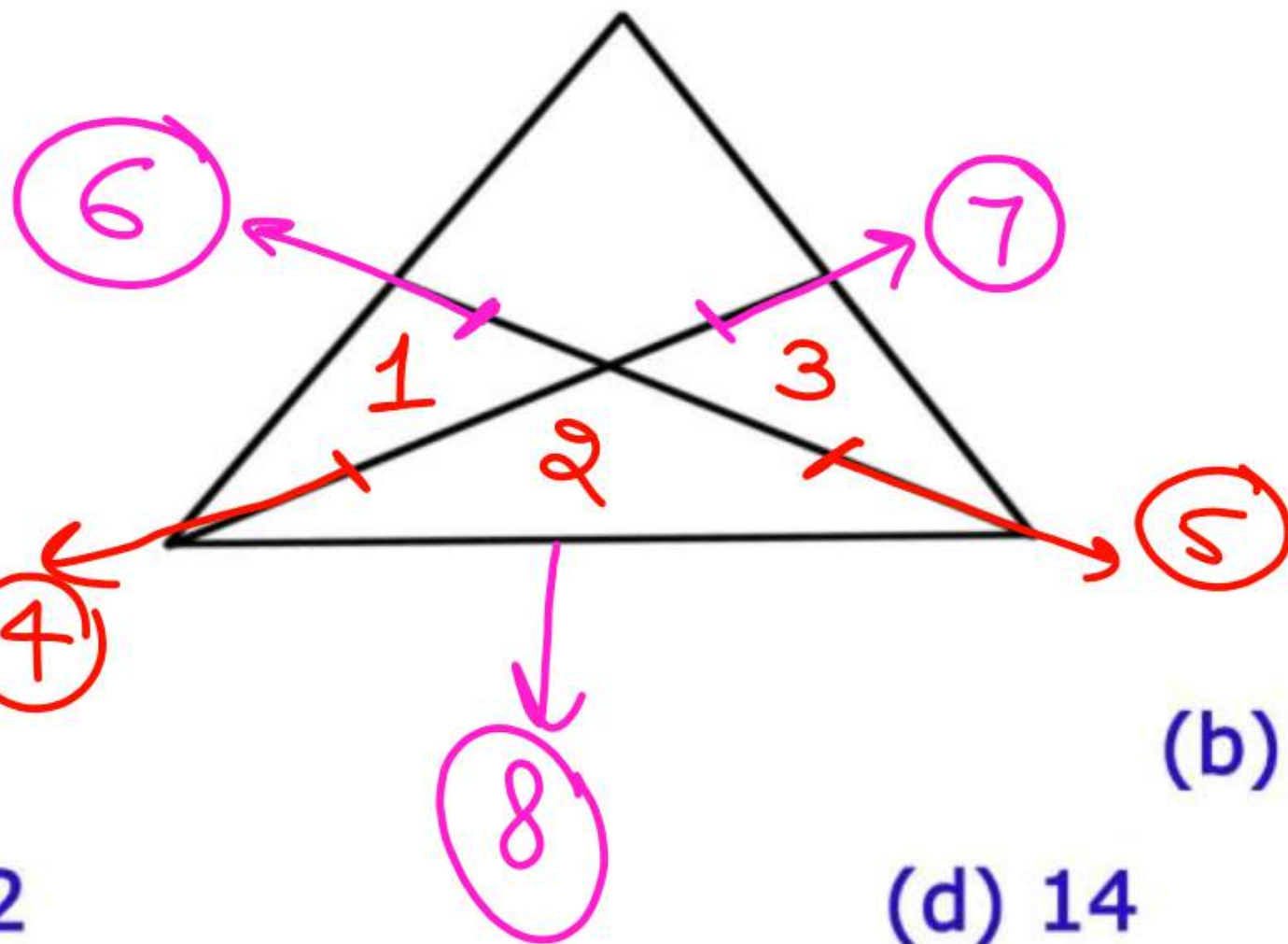
26.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



$$3^3 = 8$$

$$\Delta = N^3$$



(a) 8

(b) 10

(c) 12

(d) 14

$N \rightarrow$ वे शीर्ष से opposite भुजा को मिलाने वाली रेखा द्वारा एक भुजा पर बने वाले भाग

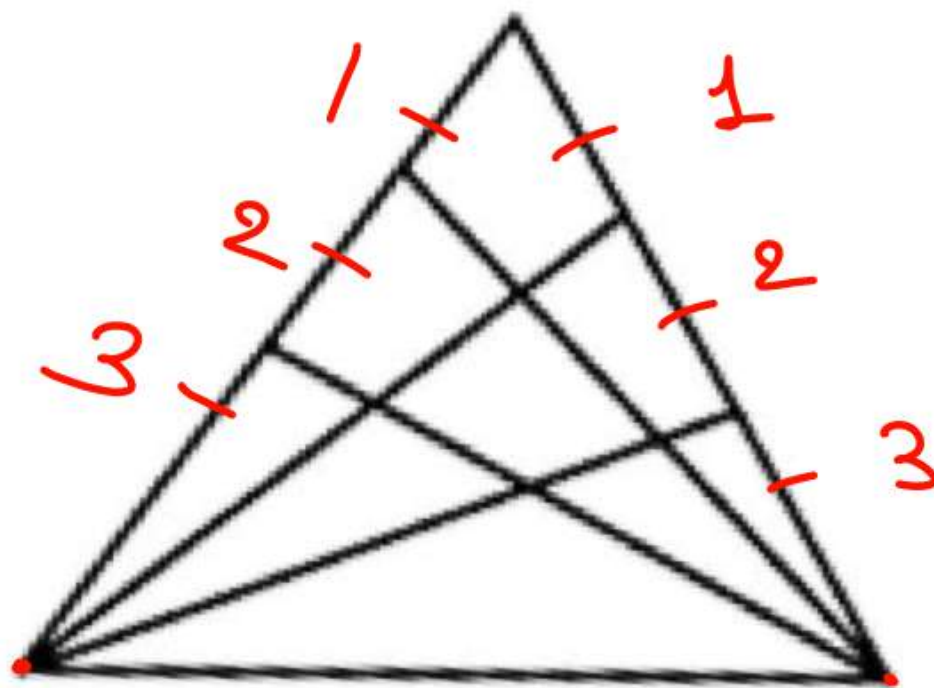
27.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

$$N = 3$$

$$\Delta = N^3 \Rightarrow 3^3 = 27$$

Ans.



(a) 27

(b) 37

(c) 17

(d) 30

28.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

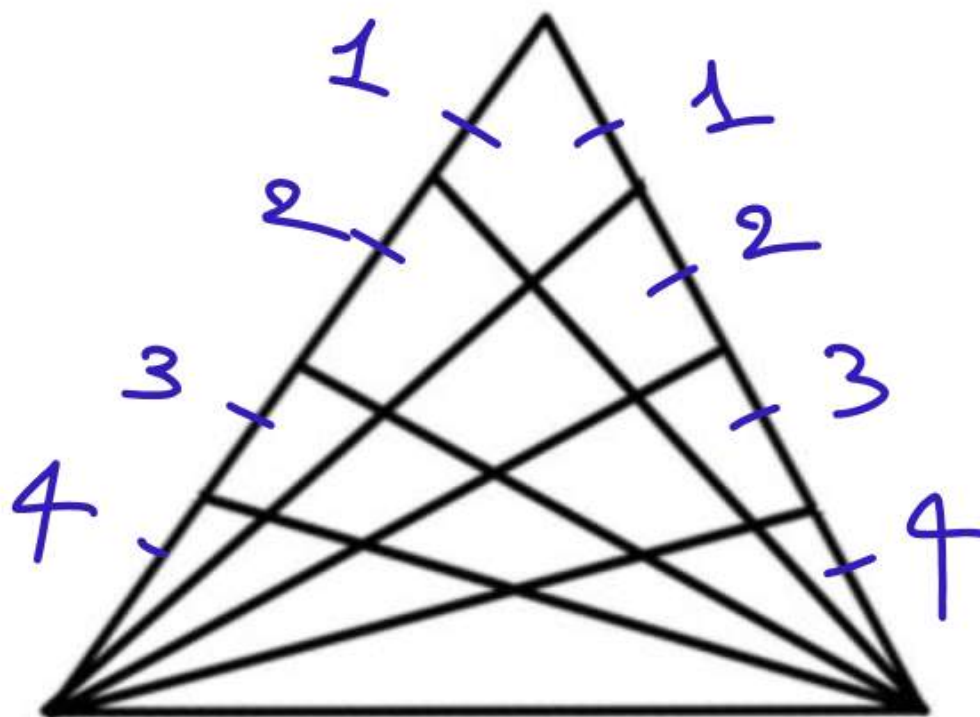
$$N = 4$$

$$\Delta = N^3$$

$$4^3 = 64$$

Answer:

Symmetric
सममिति

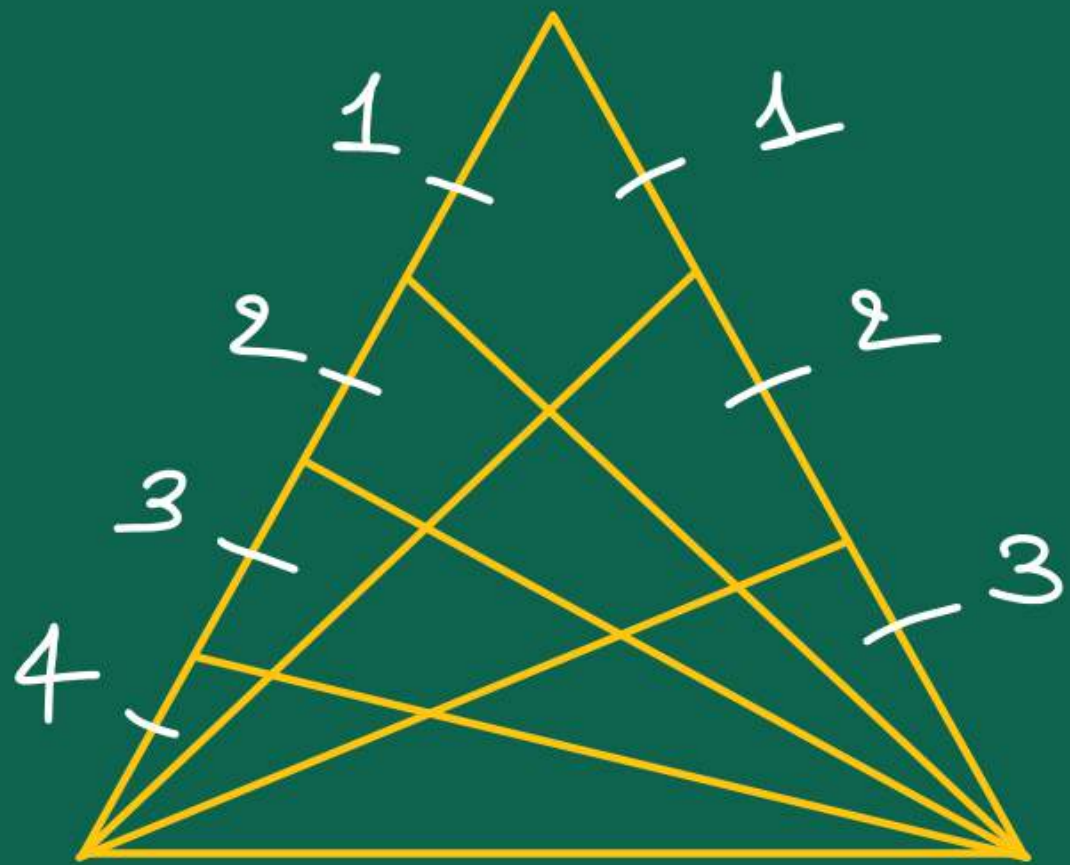


(a) 44

(b) 54

(c) 60

(d) 64



Non-Symmetric
असममित-

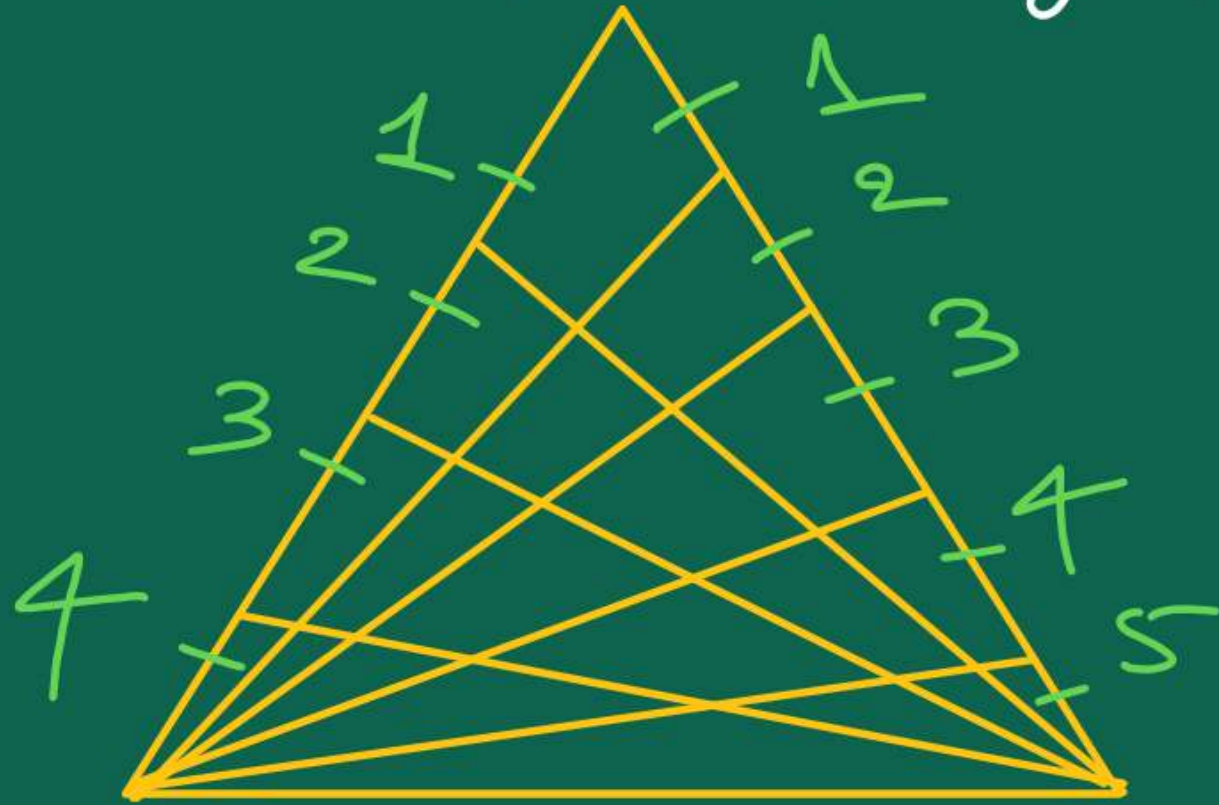
$$3 \times 4 \times \left(\frac{3+4}{2} \right)$$

$$= 3 \times 4 \times \frac{7}{2} = 42$$

Ans.

$$\Delta = A \times B \times \left(\frac{A+B}{2} \right)$$

Find total no. of triangles?



Non-Symmetric
असममिति

$$A \times B \times \left(\frac{A+B}{2} \right)$$

$$= 4 \times 5 \times \left(\frac{4+5}{2} \right)$$

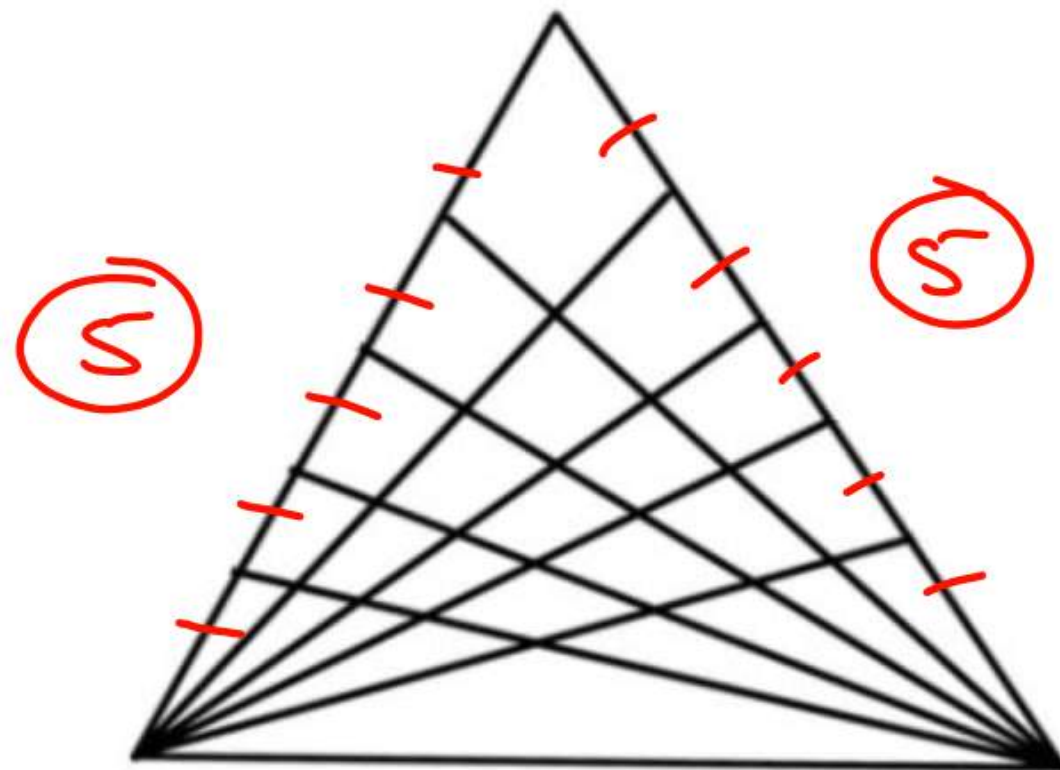
$$= \cancel{4}^2 \times 5 \times \frac{9}{\cancel{2}} = 90 \text{ Ans}$$

29.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

$$N = 5$$

$$5^3 = 125$$



- ✓ (a) 125
(c) 140

- (b) 135
(d) 145

TYPE – 6

TRIANGLE (ত্রিভুজ)



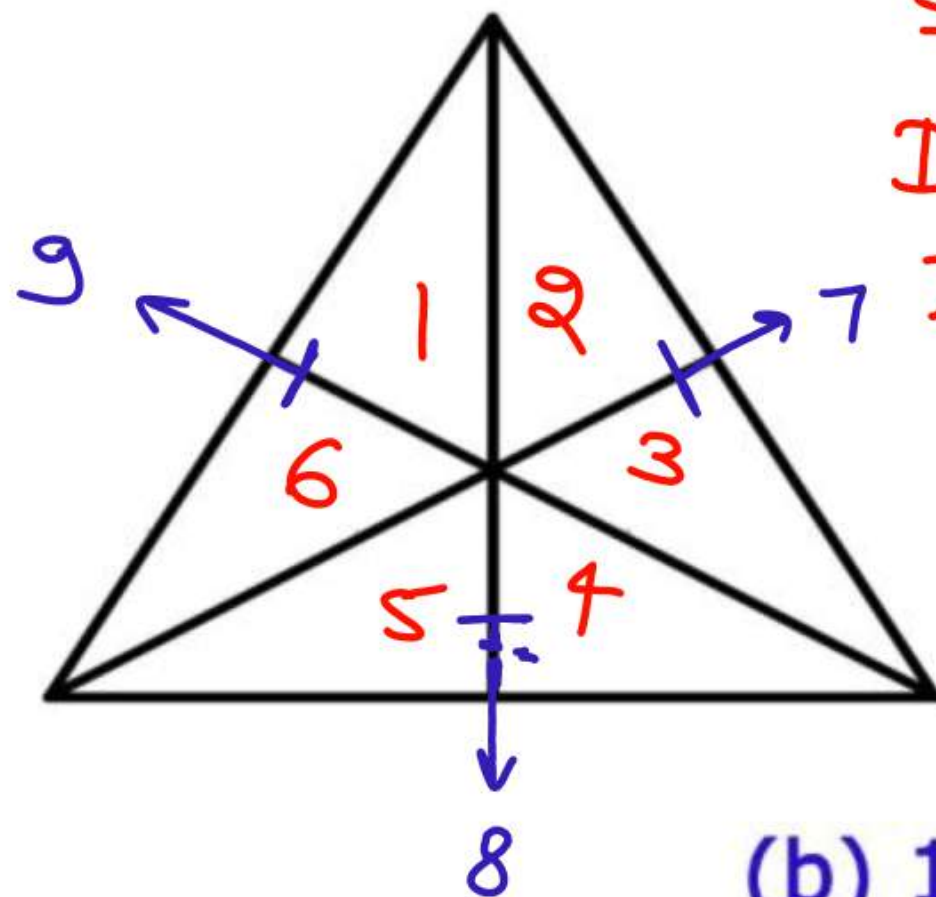
30.

* Imp.

Find the total number of Triangles?

आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

Total $\rightarrow$ 16



Single $\rightarrow$ 6

Double $\rightarrow$ 3

Triple $\rightarrow$ 6

Last $\rightarrow$ 1

16

(a) 10

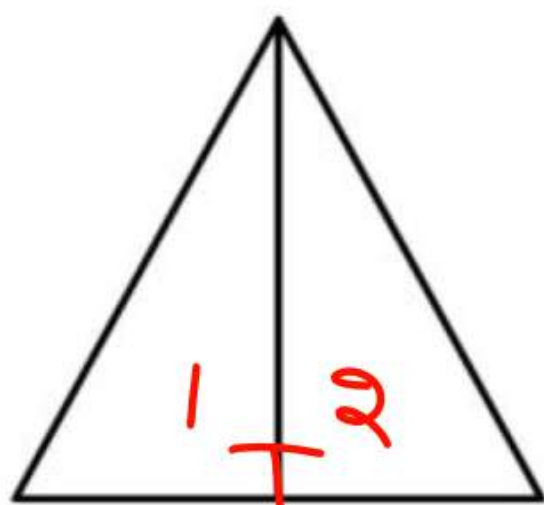
(b) 12

(c) 14

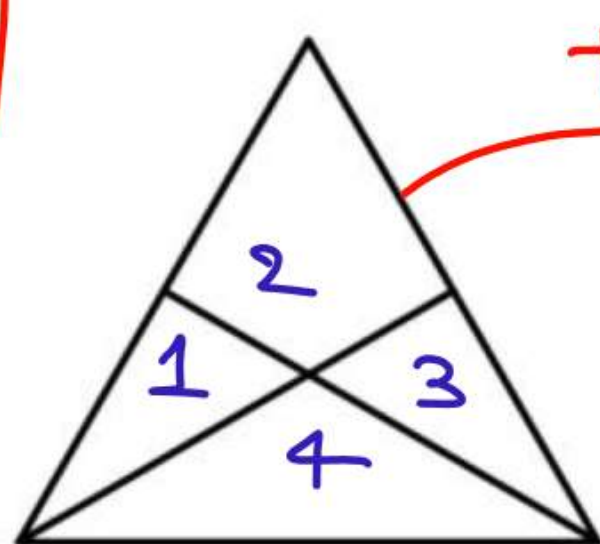
(d) 16

31.

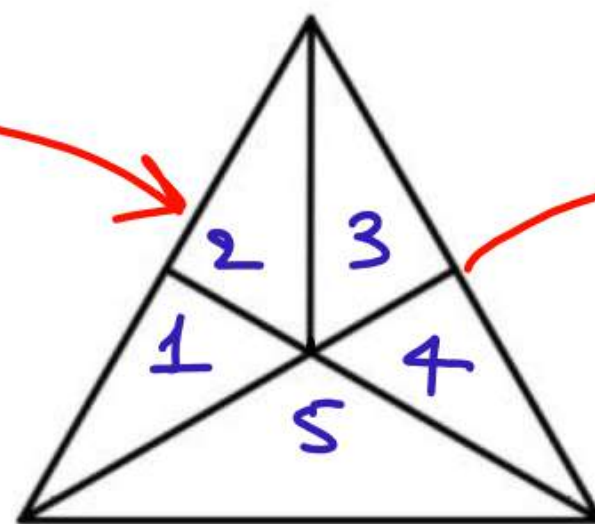
Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



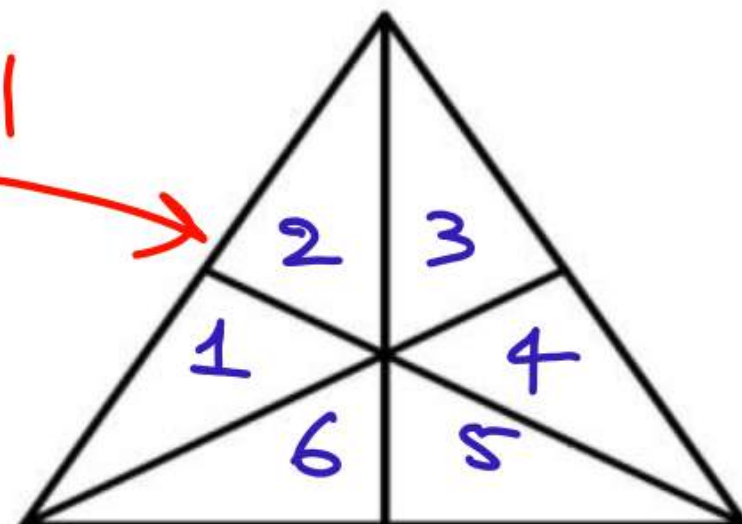
3



$\Delta = 8$



$\Delta = 12$



$\Delta = 16$

+4

+4

TYPE – 7

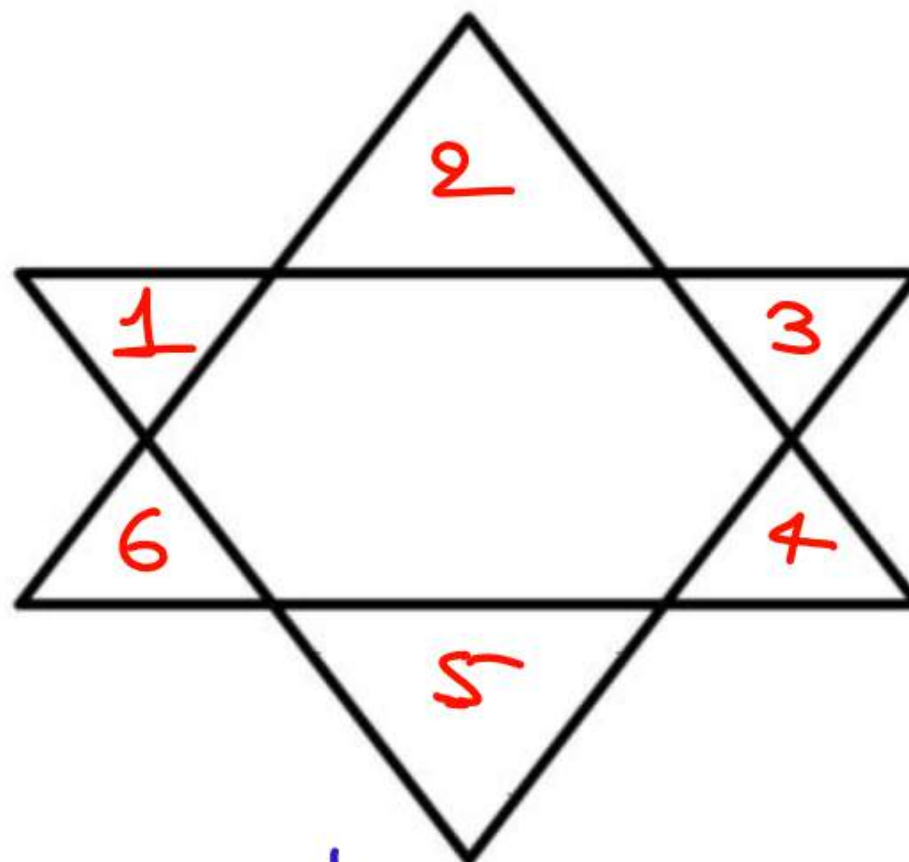
TRIANGLE (ত্রিভুজ)



32.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

$$6 + 2 = 8$$

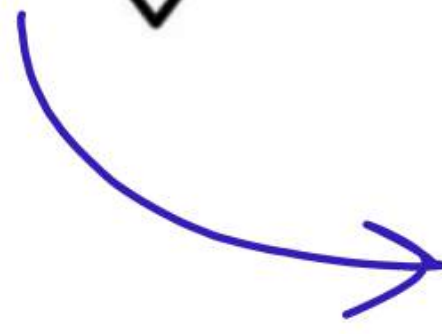


(a) 2

(b) 4

(c) 6

(d) 8

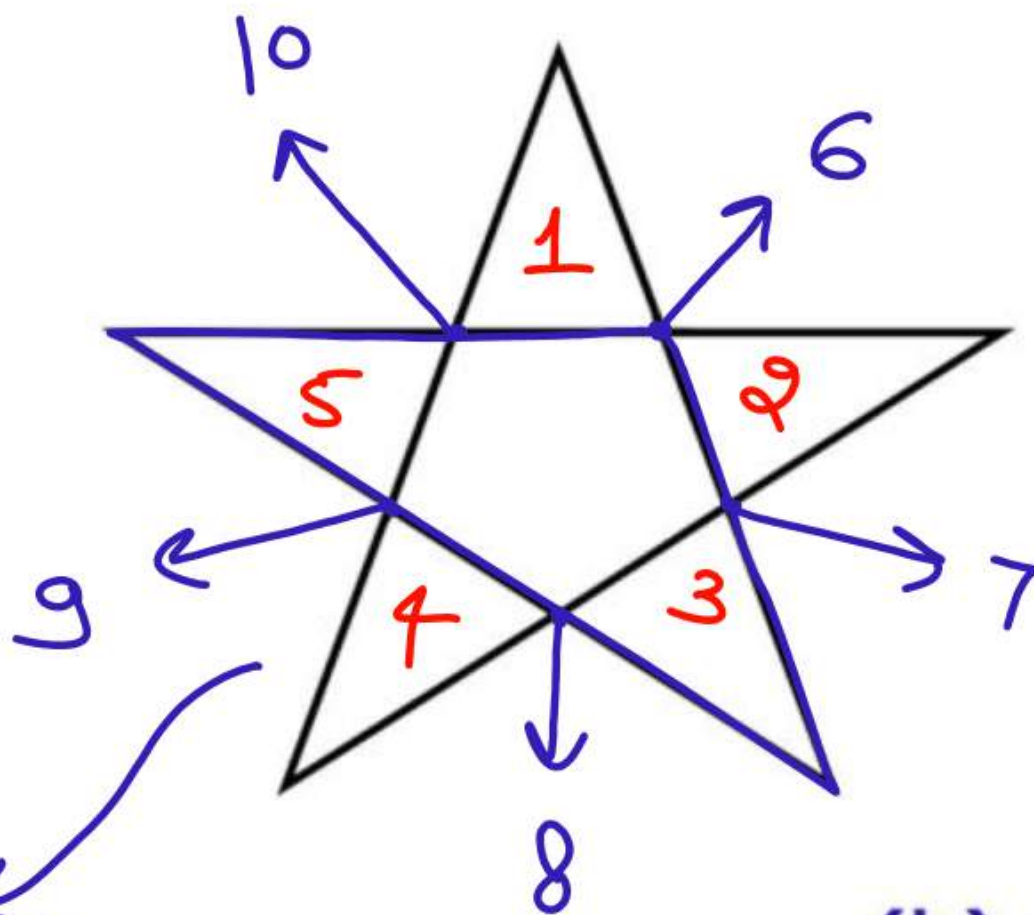


33.

Find the total number of Triangles?

आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

$$5 + 5 = \textcircled{10}$$



(a) 10

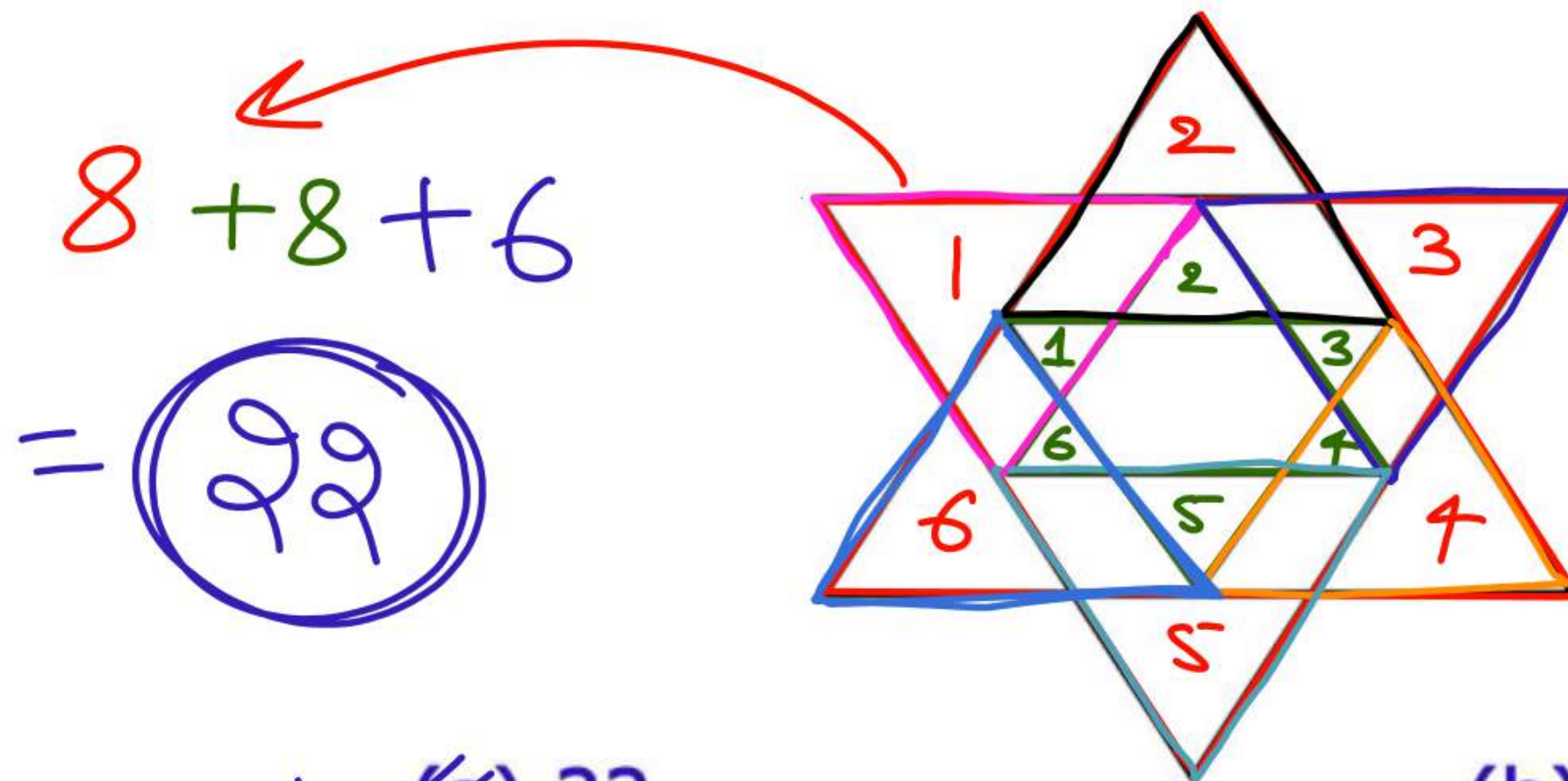
(b) 15

(c) 20

(d) 5

34.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



$$8 + 8 + 6$$

$$= 22$$

☒ (a) 22
(c) 20

(b) 30
(d) 40

TYPE – 8

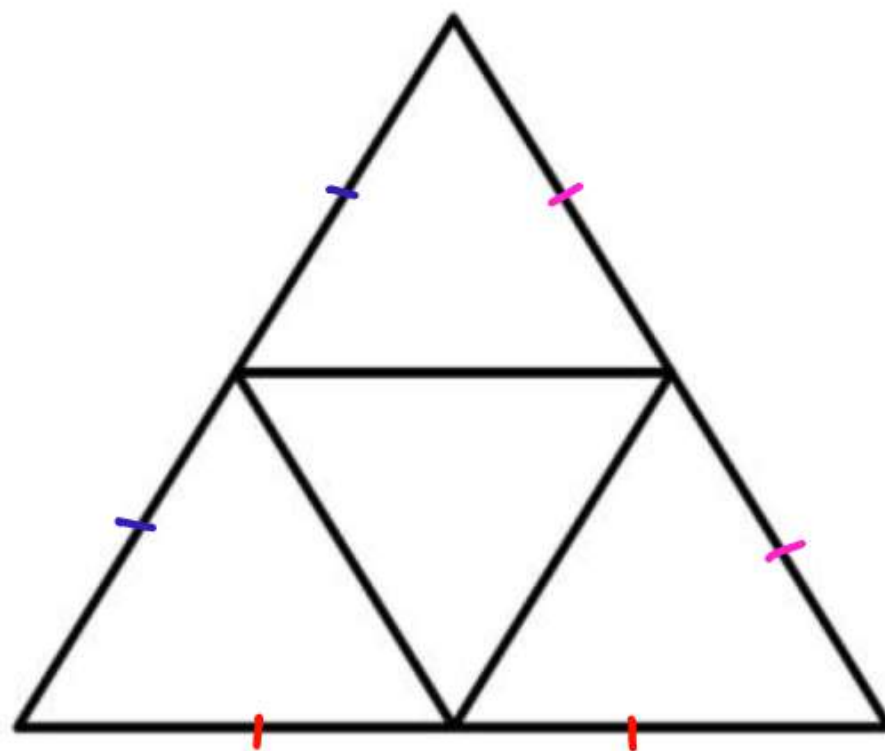
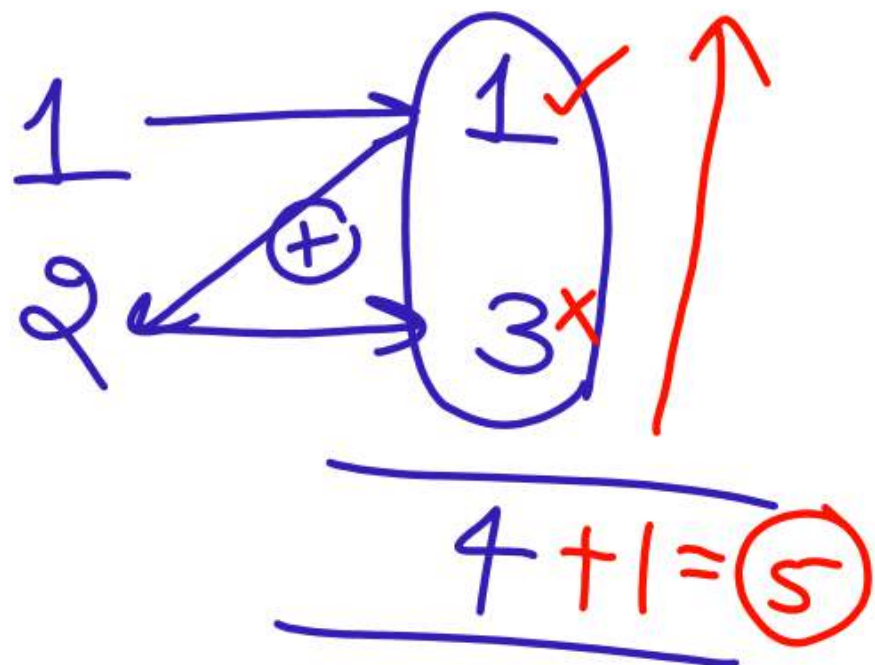
TRIANGLE (ત્રિભુજ)

Symmetric Figure
સમિમેત્ર આકૃતિ



35.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



(a) 5

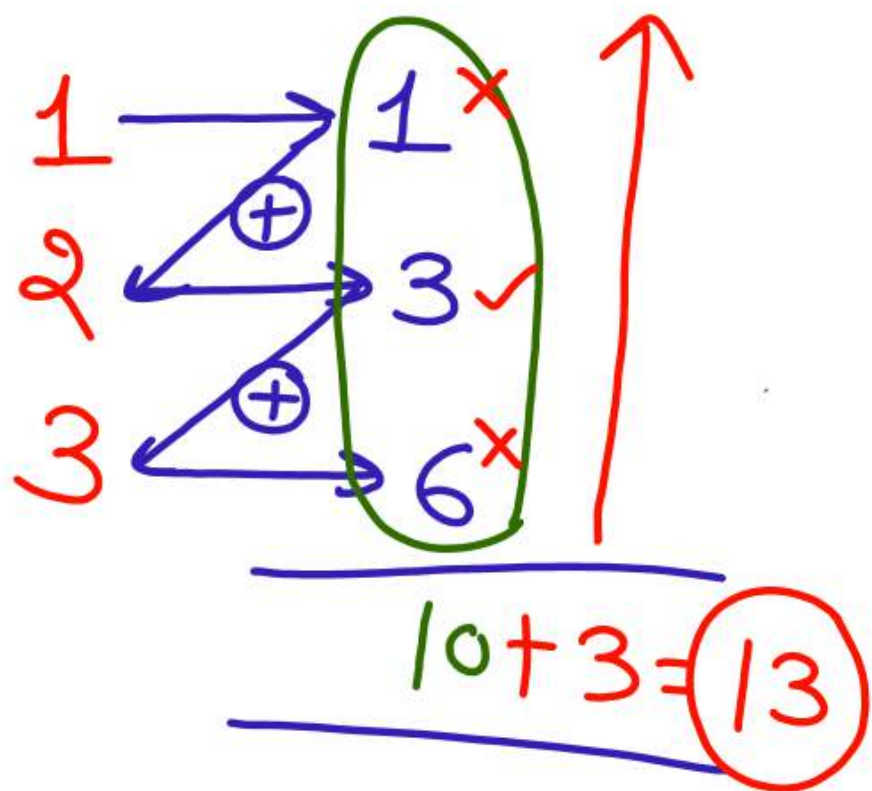
(c) 9

(b) 7

(d) 11

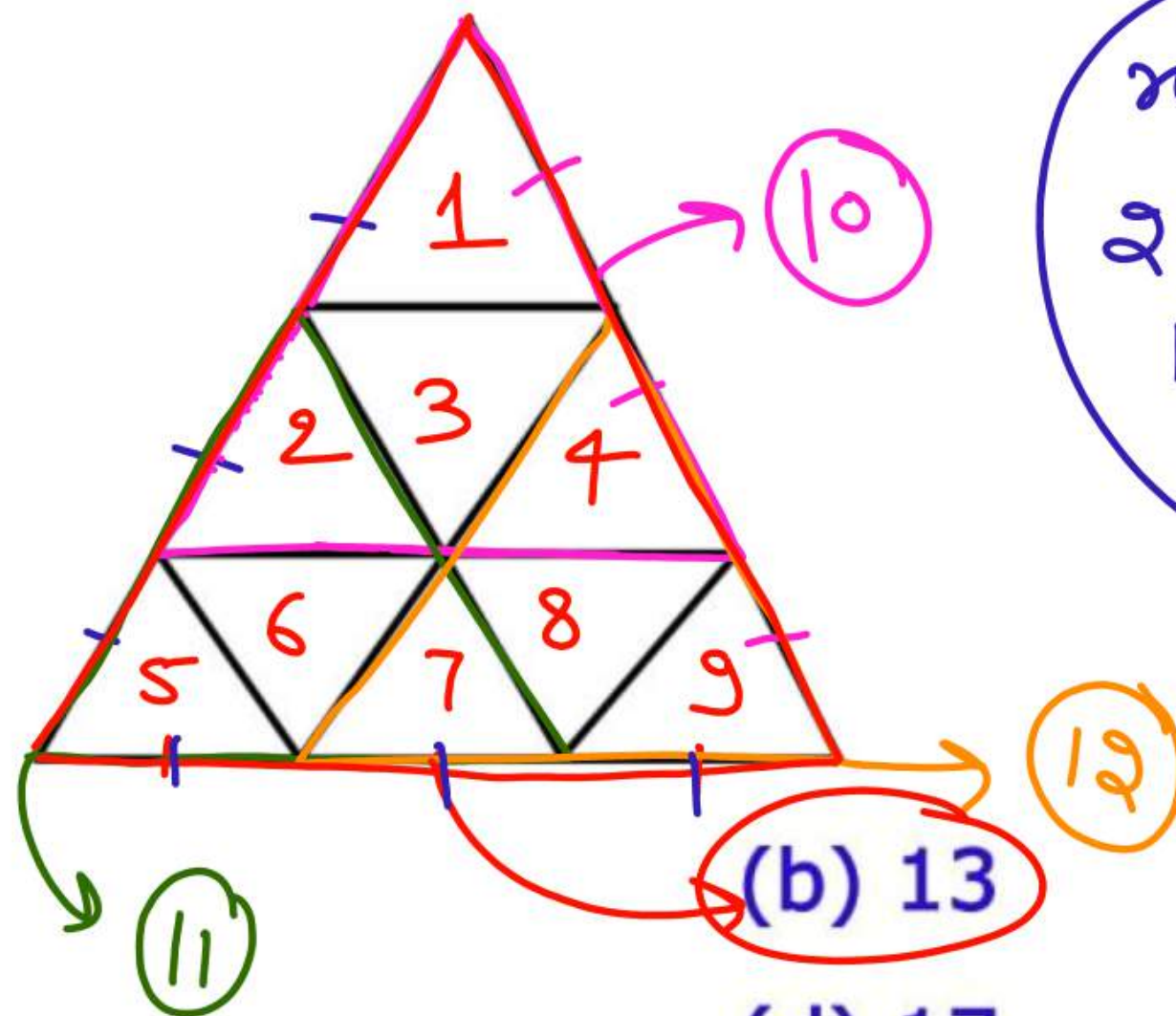
36.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



(a) 10

(c) 15



(d) 17

$$n = 3$$

$$2 \times 3 - 5$$

$$18 - 5$$

$$= 13$$

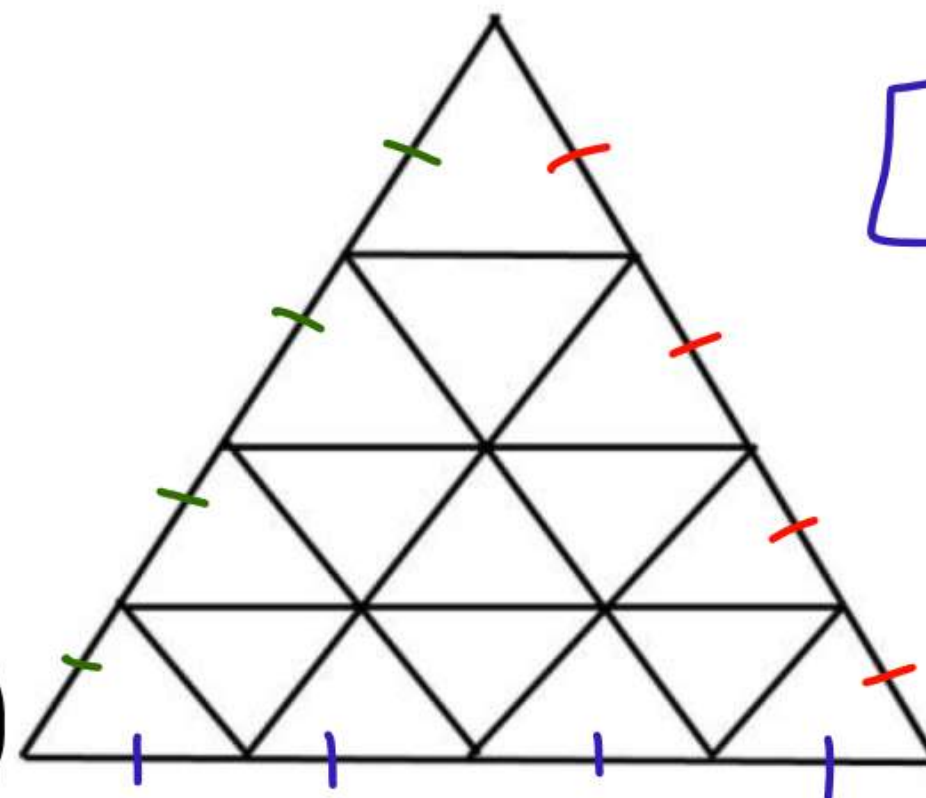
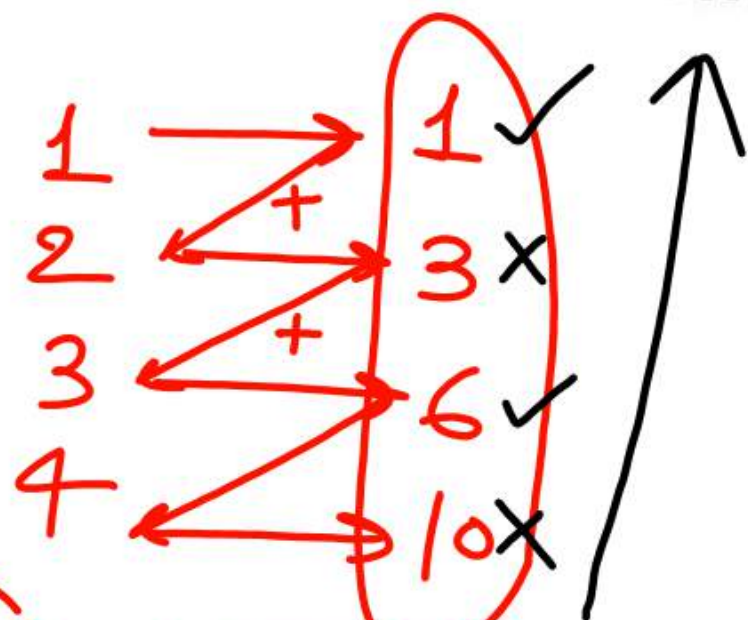
Formula

3, 4 ✓

$$2n^2 - 5$$

37.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



$$\begin{aligned}
 n &= 4 \\
 &\boxed{2n^2 - 5} \\
 &2 \times 4^2 - 5 \\
 &32 - 5 = \textcircled{27}
 \end{aligned}$$

Best Pattern

$$20 + 6 + 1 = \textcircled{27}$$

(a) 27

(b) 37

(c) 17

(d) 45

TYPE - 9

TRIANGLE (ત્રિભુજ)

જેવ ત્રિભુજ ને અંદર ત્રિભુજ હો :-

Triangle in a triangle



38.

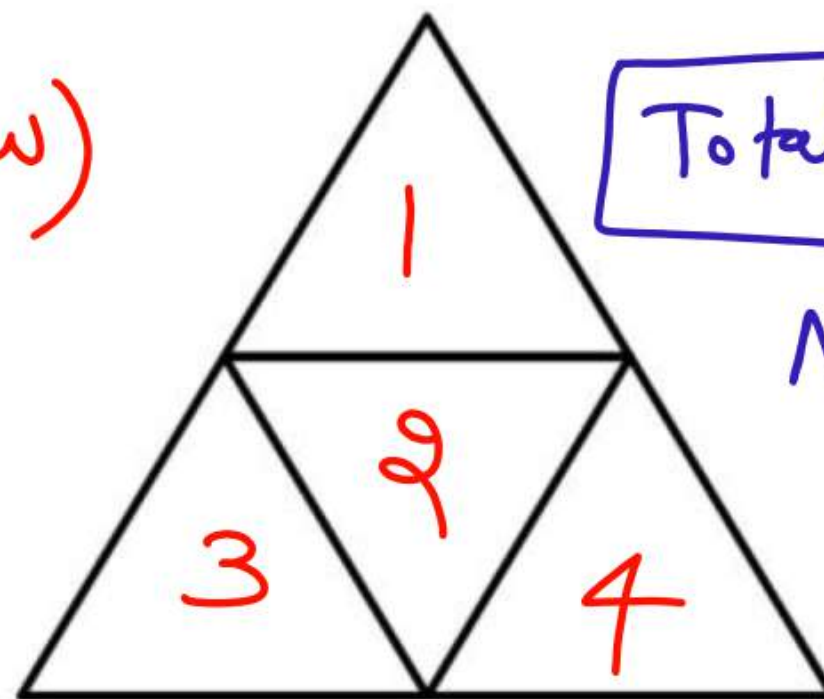
Find the total number of Triangles?

आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

FORMULA

$$\text{Total } \Delta = 4N + 1$$

$N \rightarrow$ Internal Δ
आंतरिक त्रिभुज



आंतर $\rightarrow 4$ (New)

बाह्य $\rightarrow 1$

$$\Delta \rightarrow 5$$

$$\Delta = 4N + 1$$

$$N = 1$$

$$\Delta = 4 \times 1 + 1 = 5$$

✓ (a) 5

(c) 9

(b) 7

(d) 11

39.

Find the total number of Triangles?

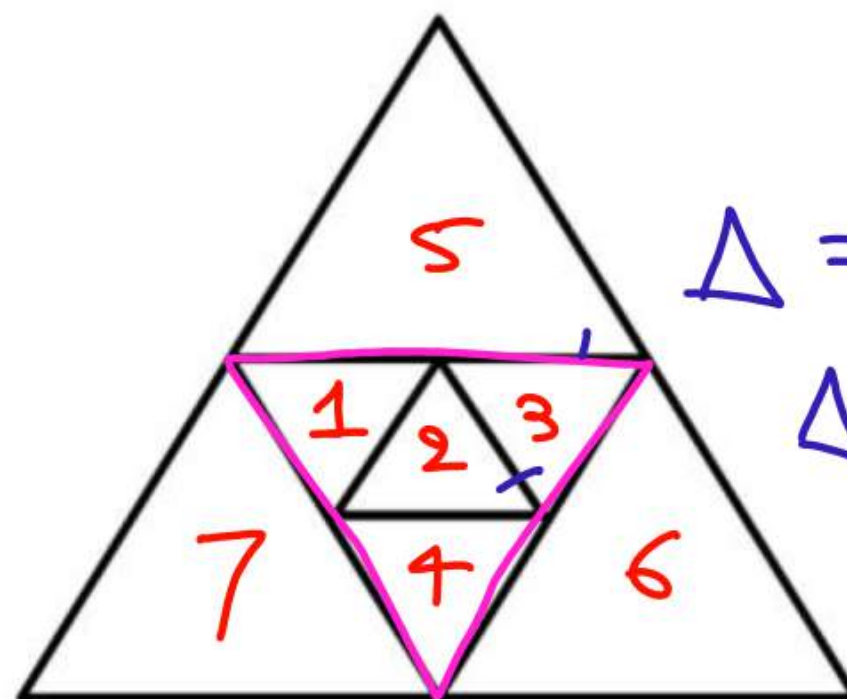
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

अंदर → 4

अंदर → 4

बाह्य → 1

Δ → 9



$N = 2$

$$\Delta = 4N + 1$$

$$\Delta = 4 \times 2 + 1 = 9$$

(a) 9 ✓

(c) 13

(b) 11

(d) 15

40.

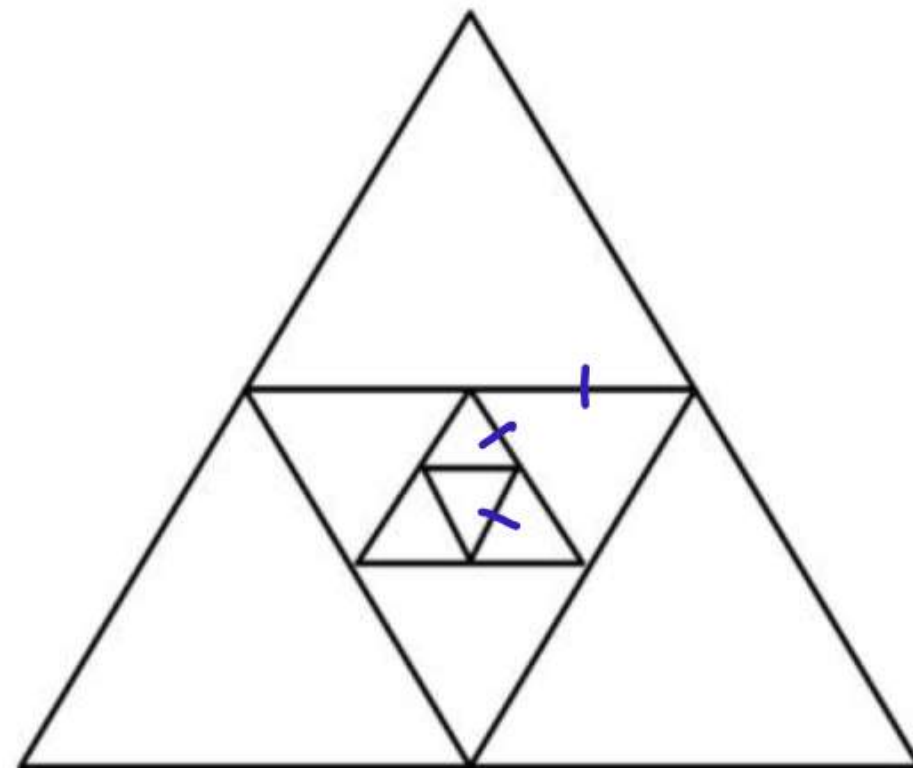
Find the total number of Triangles?

आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?

$$N \rightarrow 3$$

$$\Delta = 4N + 1$$

$$= 4 \times 3 + 1 = 13$$



(a) 11

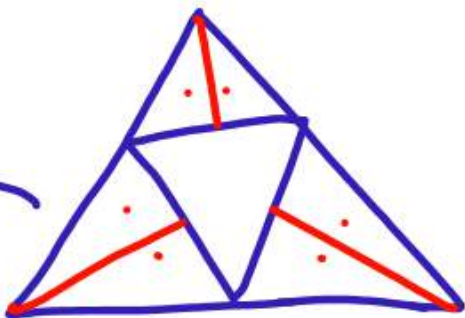
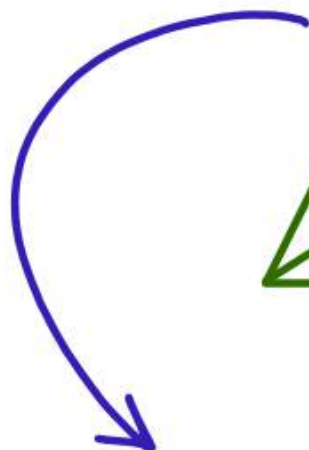
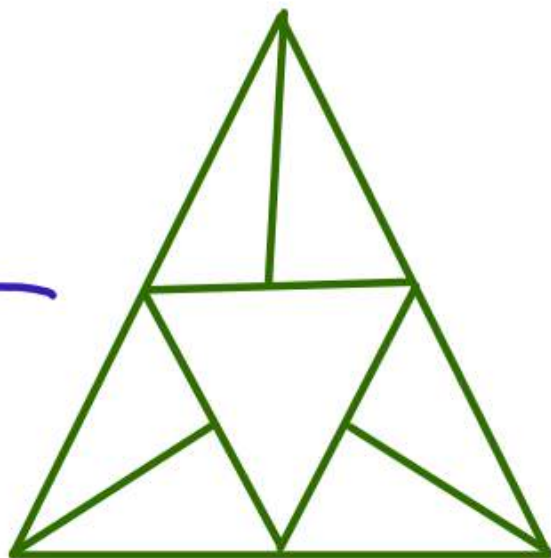
✓ (b) 13

(c) 15

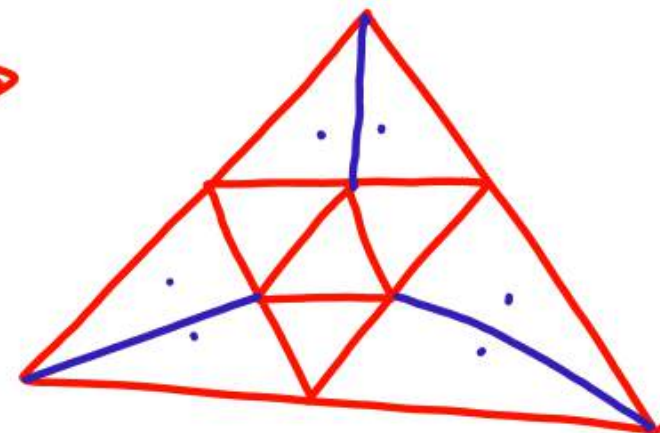
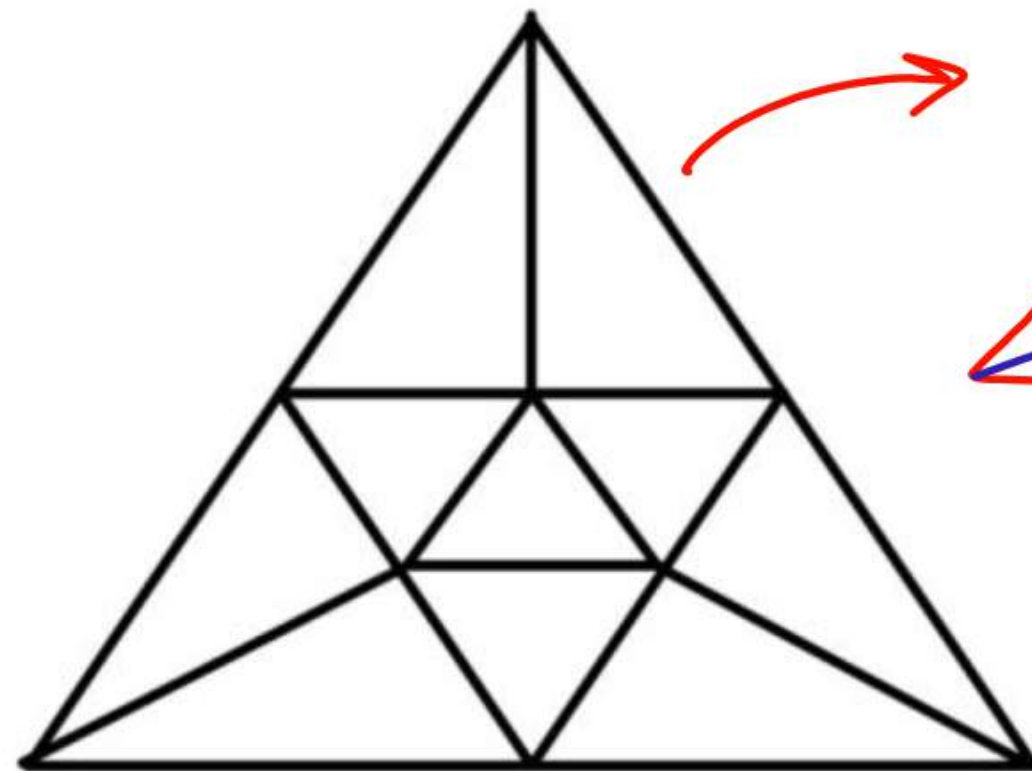
(d) 17

41.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



$$\textcircled{5} + \textcircled{6} = 11 \checkmark$$



$$4 + 4 + 1 = \textcircled{9}$$

$$9 + 6 = \textcircled{15}$$

(b) 11

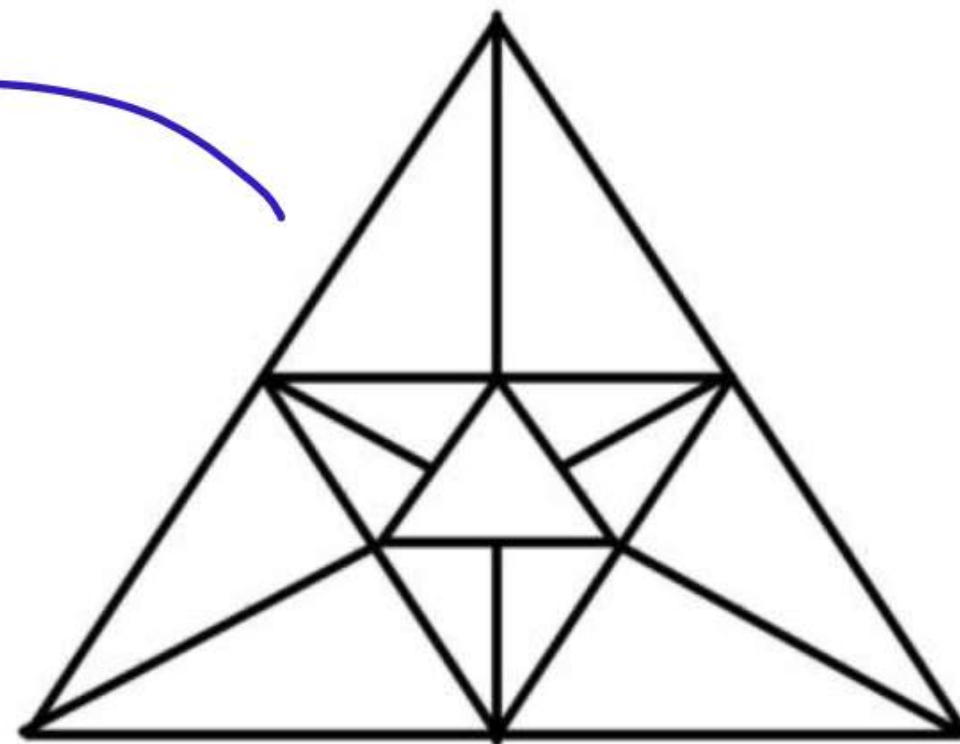
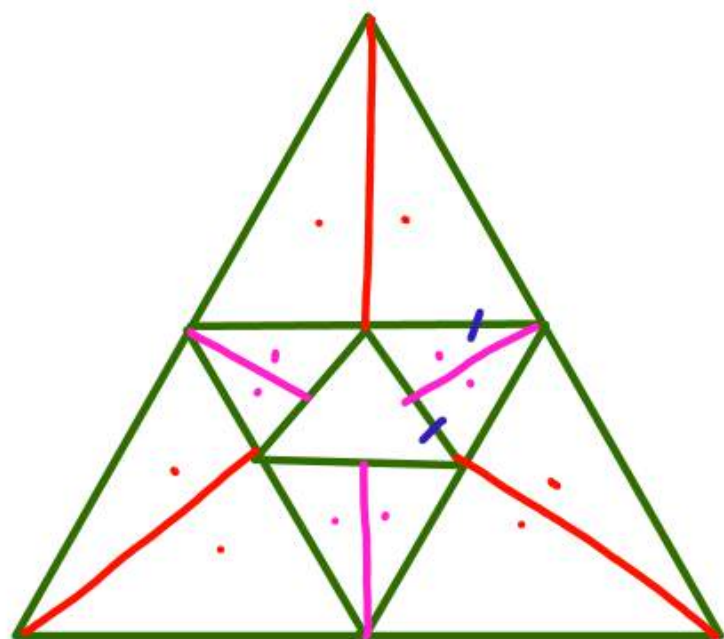
(a) 9

(c) 13

☒ (d) 15

42.

Find the total number of Triangles?
आकृति में कुल त्रिभुजों की संख्या ज्ञात कीजिये?



$$4 + 4 + 1 = 9$$

$$9 + 12 = 21$$

✓ (a) 21

(c) 15

(b) 13

(d) 17

