

Analogy

Analogy

Similarity



"A is to B as C is to D"

↓
relation

Knife : cut $::$ Pencil : write

$\underbrace{A : B}_{\text{complete pair}} :: \underbrace{C : _}_{\text{incomplete pair}}$

- ① First, Find the relationship between the complete pair of terms/figures.
- ② And then, find the missing term/figure in the incomplete pair, using the same relationship identified in the first step.

$A : _ :: C : D$

Three types of analogy

- ① Number analogy
- ② Letter analogy
- ③ Figure analogy.

① Number analogy

① $16 : 26 :: 27 : \underline{37}$
 +10

② $6 : 36 :: 8 : \underline{64}$
 $\times 6$ $\times 8$

- (a) 49
- (b) 60
- (c) 64
- (d) 68

Relationship formed by combination of two mathematical operators.

Date: __/__/----

Q.

$$\frac{4:21}{\text{ } \times 5, +1} :: 6:31$$

$\text{ } \times 5, +1$

$$4:21 :: 6: \text{---}$$

Relationship formed using consecutive prime numbers.

Date: __/__/____

Q. (i) $13 : 17 :: 19 : \underline{23}$

(ii) $2 : 7 :: 11 : \underline{19}$

$\underbrace{\quad}_{3, 5}$ $\underbrace{\quad}_{13, 17}$

- ☒ (a) 19
☒ (b) 23
(c) both
(d) none

Q. $5 : 22 :: 6 : ?$

$\xrightarrow{\times 4, + 2}$ $\xrightarrow{\times 4, + 2}$

(a) 30

(b) 16

✓ (c) 26

(d) 28

Q. $7 : 59 :: 9 : ?$

$\xrightarrow{\times 8, + 3}$ $\xrightarrow{\times 8, + 3}$

(a) 72

(b) 90

✓ (c) 75

(d) 81

Q.

$$\frac{423}{4 \times 3} : 24 :: \frac{215}{2 \times 5} : ?$$

(a) 9

☒ (b) 10

(c) 15

(d) 18

Letter Analogy :

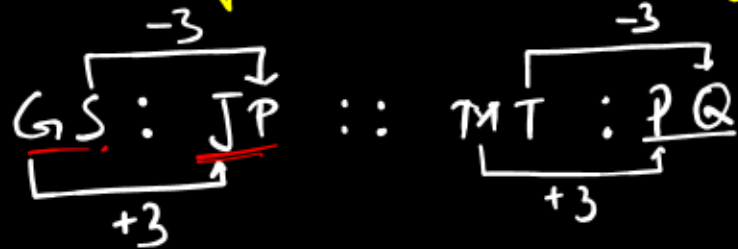
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↳ Remember the place value of letter.

A	B	C	...	Z
1	2	3		26

(i) Relationship formed by increasing/decreasing the position of letter.

eg.



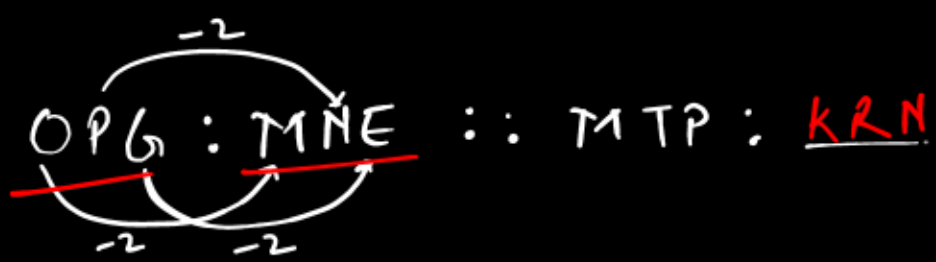
Q R S T

(ii) Relationship by arranging the letters in alphabetical order Date: __/__/____

eg. KIND : DIKN :: CALM : ACLM

(iii) Relationship formed by jumbling/changing the placement of letter in a given word.

eg. BIG : GIB :: CAT : TAC

Q.1.

- (a) OVR
- (b) KSM
- ✓ (c) KRN
- (d) OSP

K L M

② $\text{STG} : \text{PWT} :: \text{DVJ} : \underline{\text{AYM}}$

Diagram illustrating the relationship between the letters in the analogy:

- For $\text{STG} : \text{PWT}$, the shift from S to P is -3 , and from T to W is $+2$.
- For $\text{DVJ} : \underline{\text{AYM}}$, the shift from D to A is -3 , and from V to Y is $+2$.

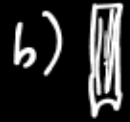
a) BJM

b) AXN

c) BXL

☒ d) AYM

3



④ ONE : ENO :: IPL : ?
LPI

⑤ $\boxed{4} : 20 :: \boxed{5} : ?$

- (a) 35
- (b) 45
- (c) 15
- ✓ (d) 30

$\textcircled{\underline{4}}$ $\overset{20}{\sim}$
 $\boxed{4 \times 4 + 4}$
 $\underline{\underline{5 \times 5 + 5}} = \underline{\underline{30}}$

① 14 : 9 :: 26 : _

a) 12

b) 52

✓ ~~(c)~~ 15

d) 34

14 → 9

$\left\{ \begin{array}{l} \div 2 \\ + 2 \end{array} \right.$
9

$\frac{26 \div 2}{\quad} \mid \frac{13 + 2}{\quad} = 15$

7) $15 : 47 :: 13 : \underline{\quad}$

- a) 38
- ✓ b) 41
- c) 45
- d) 37

$$\left\{ \begin{array}{r} 15 \\ \hline \times 3 \\ \hline 45 \\ + 2 \\ \hline 47 \end{array} \right\} \rightarrow \frac{47}{\cancel{40}} \quad \left| \quad \left\{ \begin{array}{r} 13 \\ \times 3 \\ \hline 39 \\ + 2 \\ \hline \boxed{41} \end{array} \right\}$$

⑧ $84 : 12 :: 91 : ?$

a) 14

b) 11

c) 15

✓ d) 13

(9) $AC : ZX :: BD : ?$

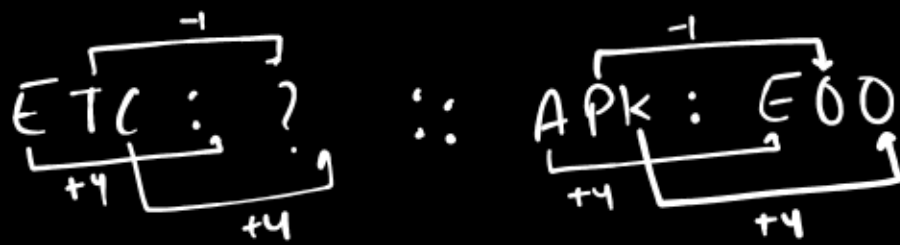
a) YV

b) XW

☒ c) YW

d) XV

(10)



a) IUG

b) HWG

c) HSH

✓ d) ISG

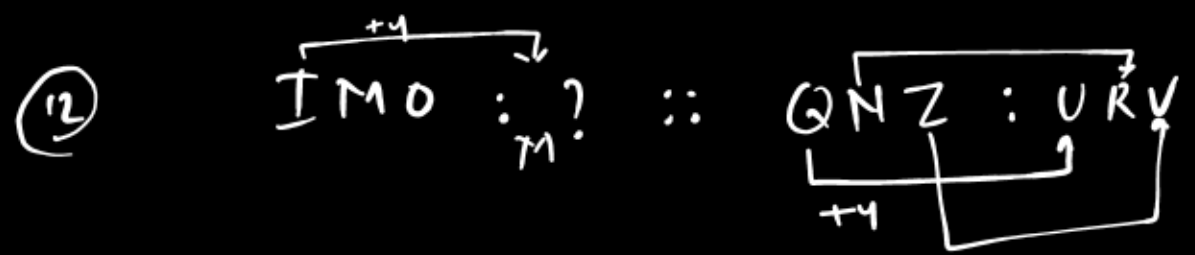
②

a) FRK

b) EPJ

✓ c) FRJ

d) ALE



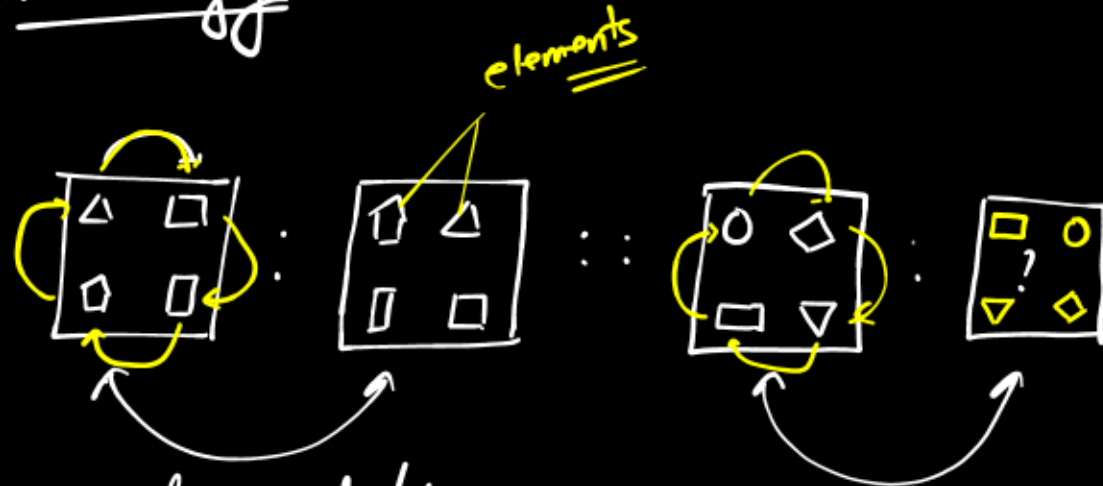
a) MQK

b) NQL

c) LPIK

d) KQK

Figure Analogy



find rule/logic

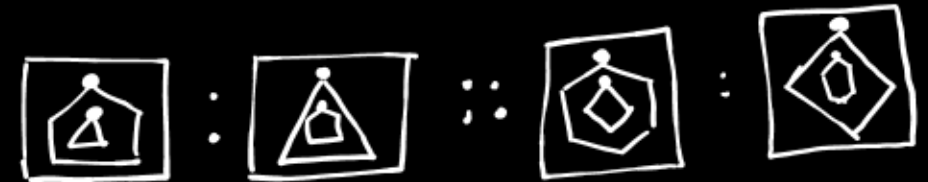
apply same rule/logic

to find missing fig.

Relationships/logics can be formed:

(i) by rotation of figure or elements of the figure.

(ii) by interchanging the figure elements.



(iii) by shading and unshading of the fig. or the part of fig. to form a new fig.

Date: __/__/____

[Refer to the PDF attachment (Analogy_class_handout-1) on parth's webpage for the problems
discussed in the class on 15th July 2026. [Click here](#)]

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