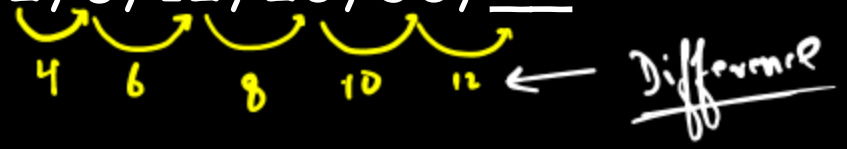
Logical Reasoning

Find the next two number:

2, 4, 8, 16, 32, 64

Find the missing term:

2, 6, 12, 20, 30, 42



Number puzzle: Two consecutive even numbers add to 50. What are they?

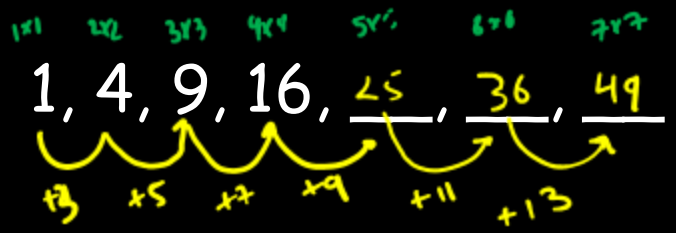
$25 + 25 = 50$

$24 + 26 = 50$

Fill in the blank:

7, 14, 28, 56, 112

Find the next three numbers:



Find odd one out:

Analogy:

5 : 25 :: 6 : 36

Analogy:

Bird : Fly :: Fish : Swim

If CAT → DBU, then DOG → ___.

If CAT → DBU (each letter moved +1), then DOG → __.

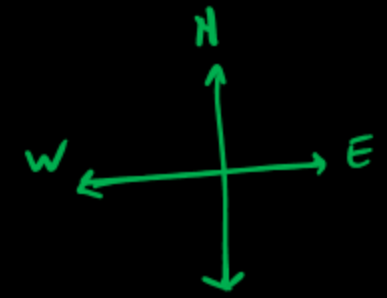
If APPLE is coded as 1-16-16-12-5 (A=1, P=16, ...), what is CODE as numbers?

3-15-4-5

A = 1
B = 2
C = 3
D = 4
E = 5
.
.
.
.
.
.
Z = 26

If APPLE is coded as 1-16-16-12-5, what is CODE as numbers?

A cat is 10 m east of a tree. A dog is 5 m west of the cat. Where is the dog from the tree?



A. 5 m east
B. 5 m west
C. 15 m east
D. 10 m west

If all roses are flowers and some flowers are red, then which is true?

A. All roses are red
B. Some roses may be red
C. No rose is red
D. Flowers are always roses

Sum of first 6 multiples of 6.?

6 + 12 + 18 + 24 + 30 + 36 = 126

Find the missing number.

3

$$
\begin{array}{r}
{\scriptstyle 2}\\
5\ 8\ 4\\
\times\ \boxed{3}\ 8\\
\hline
4\ 6\ 7\ 2\\
+\ \boxed{1\ 7\ 5\ 2}\ 0\\
\hline
2\ 2\ 1\ 9\ 2
\end{array}
$$

If $X + Y + Z = \frac{3}{4}$, $X + Y = \frac{1}{3}$ and $Z - X = \frac{1}{4}$, then what is the value of X?

A) $\frac{1}{12}$

B) $\frac{1}{6}$ ✓

C) $\frac{2}{13}$

D) $\frac{1}{8}$

$X + Y + Z = \frac{3}{4}$ — (I)

$X + Y = \frac{1}{3}$ — (II)

$Z - X = \frac{1}{4}$ — (III)

$\frac{1}{3} + Z = \frac{3}{4}$

$Z = \frac{3}{4} - \frac{1}{3} = \frac{3\times3 - 1\times4}{4\times3}$

$= \frac{9-4}{12} = \frac{5}{12}$

$Z = \frac{5}{12}$

$$\begin{bmatrix} (2) + Z = 3 & |\times -2 \\ -2 & \\ (5) + x = 9 & \\ -5 \quad -5 & \end{bmatrix}$$

Using $7 + x = 11$ →

$x = 4$

$X + Y + Z =$

$$Z - X = \frac{1}{4}$$

$$Z = \frac{5}{12}$$

$$\frac{5}{12} - X = \frac{1}{4}$$

$$-X = \frac{1}{4} - \frac{5}{12}$$

$$-X = \frac{3-5}{12}$$

$$(-1) \cdot -X = \frac{-2}{12} \times (-1)$$

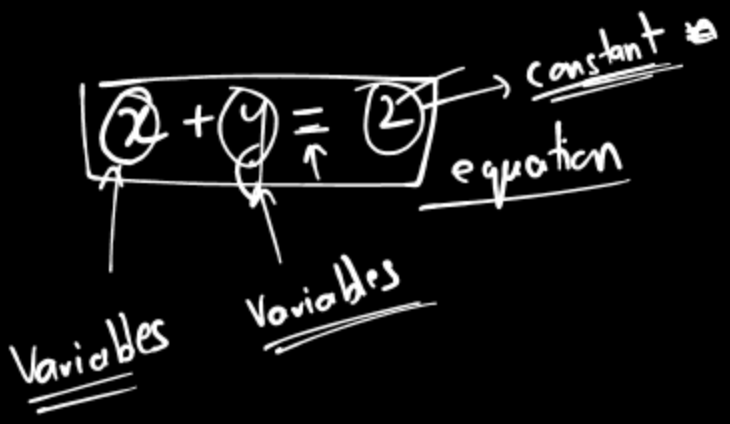
$$X = \frac{2}{12} = \frac{1}{6}$$

Negative numbers

$\ldots, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8$

$5 - 2 = 3$

$3 + Y = 7$



$2x + 1 = 5$

$x = ?$

$x = 2$

$3\frac{0}{5} = 0 = \frac{0}{1}$ ← $2\frac{0}{7}$ $\frac{0}{7} = 0$

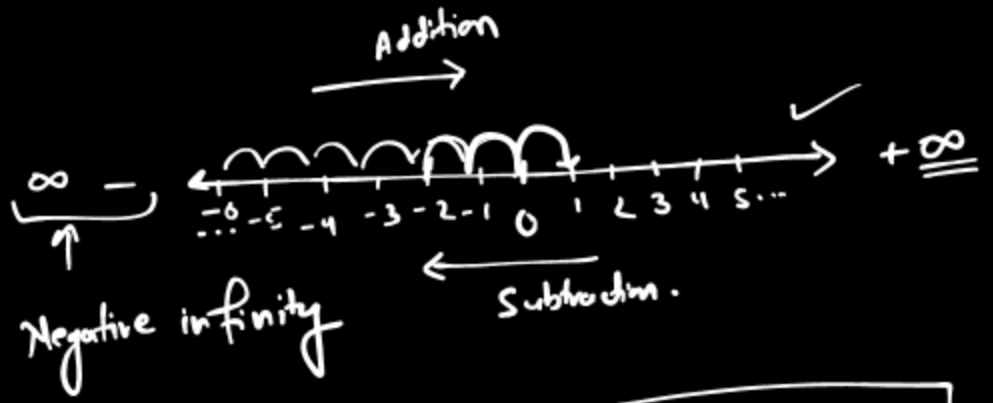
$\frac{0}{0}$ X

$\frac{0}{5} = 0 = \frac{0}{10}$ $\frac{2}{0}$ X

$= \frac{0}{99}$

$= 105\frac{0}{209}$

Negative numbers



$\sim -273^{\circ}C$

Ex. (i) $-6+6 = 0$

(ii) $-7-3 = -10$

(iii) $-6+2 = -4$

(iv) $-10+4 = -6$

(v) $-2+3 = 1$

(i) $12 - 17 = -5$

(ii) $17 - 12 = 5$

(iii) $-3 - 21 = -24$

(iv) $24 + 29 = 53$

Addition & Subtraction

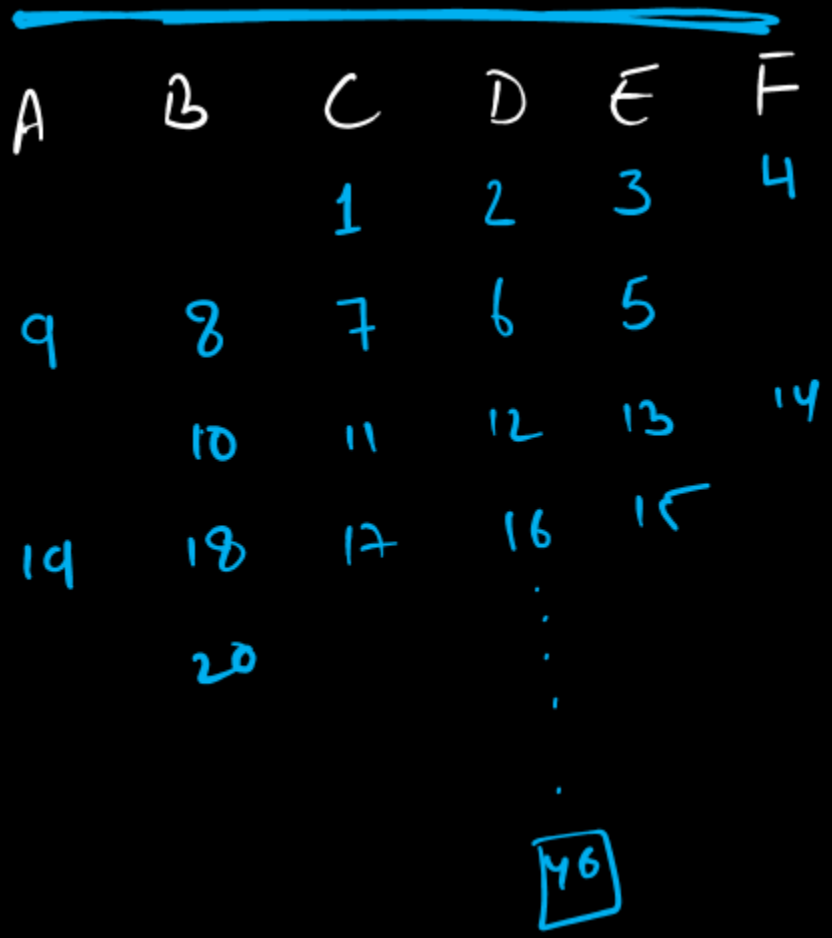
- $-\{+/-, -/+\}$ we subtract and keep the sign of bigger number
- $+\{+/+, -/-\}$ we add the numbers and keep the sign in the given problem

(vi) $-7-11 = -18$

vii) $-13+24 = 11$

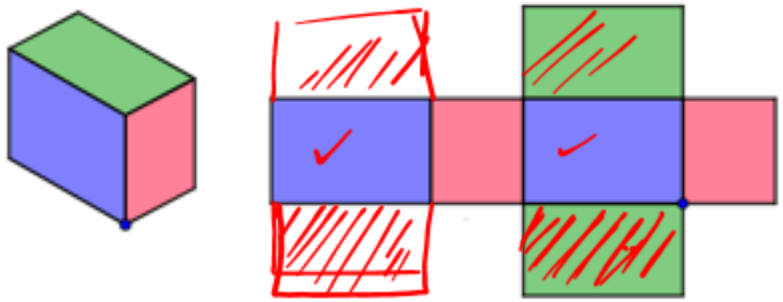
viii) $-9-3-2 = -14$

ix) $-27+11 = -16$

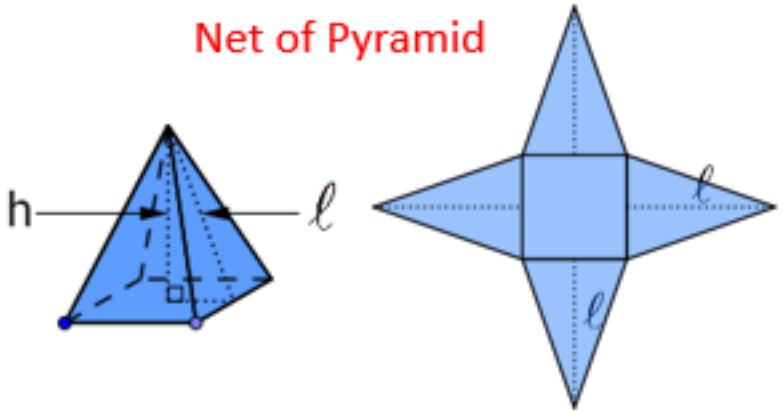


Nets of Solids

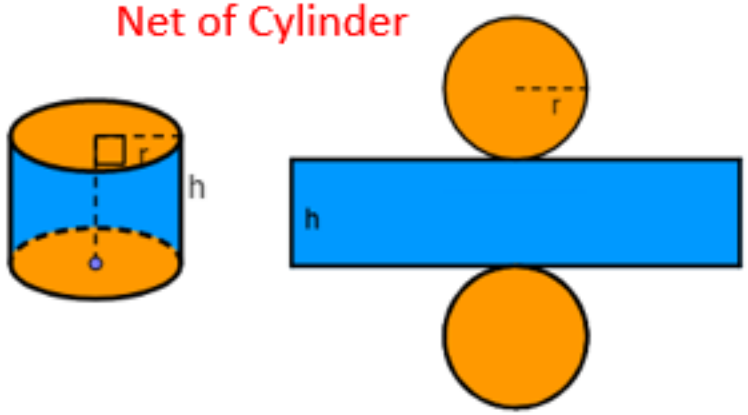
Net of Rectangular Prism



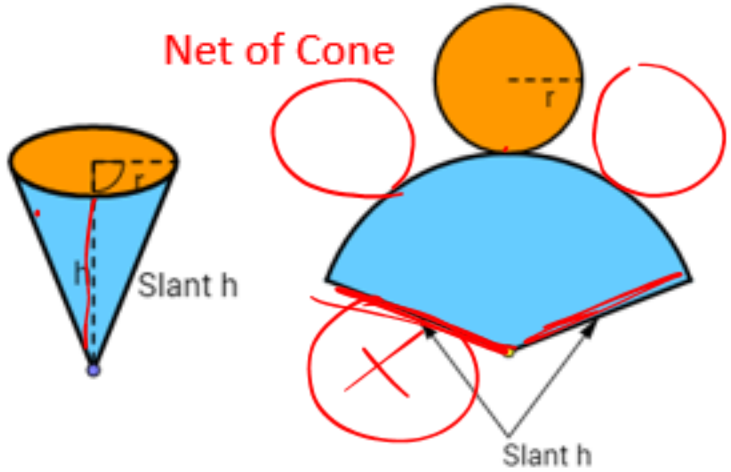
Net of Pyramid



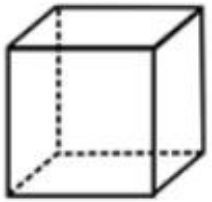
Net of Cylinder



Net of Cone

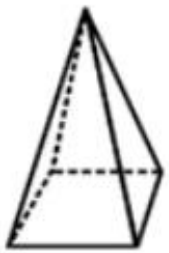


Met of cube

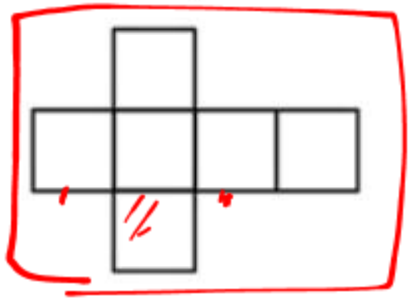
(a) 

(b) 

(c) 

(d) 

(i) 

(ii) 

(iii) 

(iv)