The sum of the squares of three numbers is 138 , while the sum of their products taken two at a time is 131 . Their sum
The sum of the squares of three numbers is 138 , while the sum of their products taken two at a time is 131. Their sum is:
A. 20
B. 30
C. 40
D. None of these

## Option A. 20 is the right answer



Aptitude Questions by CSS MCQs
Let suppose The sum of the squares of three numbers is 138 i.e

$$
a^{2}+b^{2}+c^{2}=138
$$

And, the sum of their products taken two at a time is 131 i.e
$(\boldsymbol{a b}+\boldsymbol{b c}+\boldsymbol{c a})=131$
Now, as we know that
$(a+b+c)^{2}=a^{2}+b^{2}+c^{2}+2(a b+b c+c a)$
By putting the values, we get
$(\mathbf{a}+\mathbf{b}+\mathbf{c})^{2}=138+2 \times 131$
$(\mathbf{a}+\mathbf{b}+\mathbf{c})^{2}=400$

The sum of the squares of three numbers is 138 , while the sum of their products taken two at a time is 131 . Their sum By taking under root on both sides, we get
$\sqrt{ }(\mathbf{a}+\mathbf{b}+\mathbf{c})^{2}=\sqrt{ } 400$

## $(a+b+c)=20$

Hence, if the sum of the squares of three numbers is 138, while the sum of their products taken two at a time is 131. Thenm their sum is 20 as proved above.
which is our right answer:)

837

