Two forces of 10N and 6N act upon a body. The direction of the forces are unknown. The resultant force on the body

1.15N

2.3N

3.17N

4.2N

Solution

The resultant force on the body is

$$\bar{F} = \overline{F_1} + \overline{F_2} \gg F_{max} = F_1 + F_2$$

$$\bar{F} = \overline{F_1} + \overline{F_2} \gg F_{min} = F_1 - F_2$$

$F_{max} = 10 + 6 = 16N$

That's why answer 3 is wrong ($F_{max} < 17N$)

$F_{min} = 10 - 6 = 4N$

Therefore answers 2 and 4 are wrong ($F_{min} > 3N, F\_\min > 2N$).

So right answer is 1 $F_{min} < 15N < F_{max}$

Answer: 1