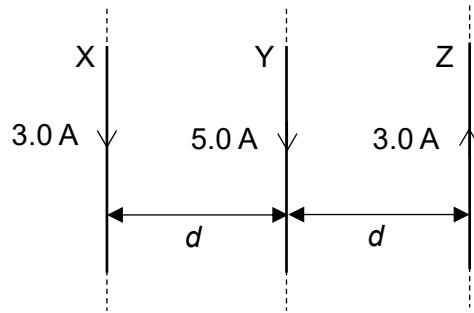


- 23** Three long, parallel wires X, Y and Z carry currents of 3.0 A, 5.0 A and 3.0 A respectively in the directions shown. X and Z are at distance d from Y. Wire Y exerts a force per unit length of $8.0 \times 10^{-6} \text{ N m}^{-1}$ on wire Z.



What is the resultant force per unit length acting on wire X?

- A** $5.6 \times 10^{-6} \text{ N m}^{-1}$ to the right
- B** $5.6 \times 10^{-6} \text{ N m}^{-1}$ to the left
- C** $8.0 \times 10^{-6} \text{ N m}^{-1}$ to the right
- D** $8.0 \times 10^{-6} \text{ N m}^{-1}$ to the left

