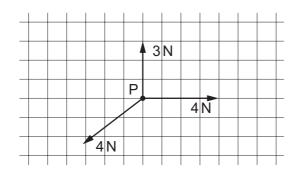
15 The vector diagram shows three coplanar forces acting on an object at P.



The magnitude of the resultant of these three forces is 1 N.

What is the direction of this resultant force?

A 💉

В

C

D /

16 In 'normal driving conditions', an electric car has a range of 150 km. This uses all of the 200 MJ of energy stored in its batteries.

With the batteries initially fully charged, the car is driven  $100\,\mathrm{km}$  in 'normal driving conditions'. The batteries are then recharged from a household electrical supply delivering a constant current of  $13.0\,\mathrm{A}$  at a potential difference of  $230\,\mathrm{V}$ .

What is the minimum time required to recharge the batteries?

- **A** 0.95 hours
- **B** 12.4 hours
- **C** 18.6 hours
- **D** 27.9 hours