# Angles: addition, bisectors, complements and supplements — Further practice

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**Further practice** 11

Find the complementary angle of 67°.

**Further practice** 12

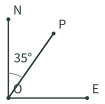
Find the supplementary angle of 93°.

**Further practice** 13

Add 30°45′ and 25°30′. Carry angle minutes correctly.

**Further practice** 14

ON points north and OE points east. OP is 35° east of north, measured from north towards east. Find the angle from east towards OP.

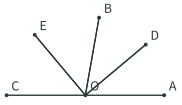



Angle sketch: use the stated angles and ray order.

**Extension** 15

OA and OC are opposite rays; OB lies between them with ∠AOB = 80° and ∠BOC = 100°. OD and OE are the internal bisectors of those two angles. Find ∠DOE.

$$80/2 + 100/2$$




Angle sketch: use the stated angles and ray order.

**Extension** 16

An angle x has a supplement three times its complement, giving 180 − x = 3(90 − x). Solve and check both related angles.

$$180 - x = 3(90 - x)$$