1 The random variable $X \sim N(\mu, 5^2)$ and $P(X < 18) = 0.9032$.
Find the value of μ.

2 The random variable $X \sim N(11, \sigma^2)$ and $P(X > 20) = 0.01$.
Find the value of σ.

3 The random variable $Y \sim N(\mu, 40)$ and $P(Y < 25) = 0.15$.
Find the value of μ.

4 The random variable $Y \sim N(50, \sigma^2)$ and $P(Y > 40) = 0.6554$.
Find the value of σ.

1 The random variable $X \sim N(30, 5^2)$. Find the value of a, to 2 decimal places, such that:

a $P(X < a) = 0.3$ **b** $P(X < a) = 0.75$ **c** $P(X > a) = 0.4$ **d** $P(32 < X < a) = 0.2$

2 The random variable $X \sim N(12, 3^2)$. Find the value of a, to 2 decimal places, such that:

a $P(X < a) = 0.1$

b $P(X > a) = 0.65$

c $P(10 \leqslant X \leqslant a) = 0.25$

d $P(a < X < 14) = 0.32$