



- b. Find the probability that she has a height greater than 180 cm. (4)

Solutions

1a.

The random variable $H \sim$ height of females. $P(H > 170) = P\left(Z > \frac{170-160}{8}\right)$ $= P(Z > 1.25)$	M1
$= 1 - 0.8994$	M1
$= 0.1056\dots$ $= 0.106$	M1

1b.

$P(H > 180) = P\left(Z > \frac{180-160}{8}\right)$	M1
$= 0.0062$	M1
$P(H > 180 \mid H > 170) = \frac{0.0062}{0.1056}$	M1
$= 0.058776\dots$ $= 0.0587$	M1

