

a. Find the probability that this child runs 100 m in less than 15 s. (3)

b. Estimate, to 2 decimal places, the slowest time taken to run 100 m for which a child will be awarded a certificate. (4)

[illegible]

Solutions

1a.

$z = \frac{15-16.12}{1.6} = -0.70$	M1
$P(Z < -0.70) = 1 - 0.7580$	M1
$= 0.2420$	M1

1b.

$P(T < t) = 0.30$ $z = \frac{t-16.12}{1.6}$	M1
$z = -0.5244$	M1
$\frac{t-16.12}{1.6} = -0.5244$	M1
$t = 15.28$	M1

