

**5** The time in hours that Davin plays on his games machine each day is normally distributed with mean 3.5 and standard deviation 0.9.

- (a) Find the probability that on a randomly chosen day Davin plays on his games machine for more than 4.2 hours. [3]

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- (b) On 90% of days Davin plays on his games machine for more than  $t$  hours. Find the value of  $t$ . [3]

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- (c) Calculate an estimate for the number of days in a year (365 days) on which Davin plays on his games machine for between 2.8 and 4.2 hours. [3]

[illegible]