

7 The times, in minutes, that Karli spends each day on social media are normally distributed with mean 125 and standard deviation 24.

- (a) (i) On how many days of the year (365 days) would you expect Karli to spend more than 142 minutes on social media? [5]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

- (ii) Find the probability that Karli spends more than 142 minutes on social media on fewer than 2 of 10 randomly chosen days. [3]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

**(b)** On 90% of days, Karli spends more than  $t$  minutes on social media.

Find the value of  $t$ .

[3]

.....

.....

.....

.....

.....

.....

.....

.....

.....