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4. The weights of packages delivered to Susie are normally distributed with a mean of 510 grams and a standard deviation of 45 grams.

(a) Find the probability that a randomly selected package delivered to Susie weighs less than 450 grams.

(3)

The heaviest 5% of packages delivered to Susie are delivered by Rav in his van, the others are delivered by Taruni on foot.

(b) Find the weight of the lightest package that Rav would deliver to Susie.

(3)

Susie randomly selects a package from those delivered by Taruni.

(c) Find the probability that this package weighs more than 450 grams.

(4)

On Tuesday there are 5 packages delivered to Susie.

(d) Find the probability that 4 are delivered by Taruni and 1 is delivered by Rav.

(3)

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Q4