## $\bullet \bullet$ MEGA LECTURE

## Estimation

## Question Paper 1



Grade Boundaries:

| A* | A | B | C | D | E | U |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $>85 \%$ | $75 \%$ | $60 \%$ | $45 \%$ | $35 \%$ | $25 \%$ | $<25 \%$ |

1 By writing each number correct to 1 significant figure, estimate the value of $\frac{\sqrt{3.9} \times 29.3}{8.9-2.7}$. Show all your working.

> Answer

2 The probability that it will rain on any day is $\frac{1}{5}$.
Calculate an estimate of the number of days it will rain in a month with 30 days.

Answer

$$
p=\frac{0.002751 \times 3400}{(9.8923+24.7777)^{2}} .
$$

(a) In the spaces provided, write each number in this calculation correct to 1 significant figure.

(b) Use your answer to part (a) to estimate the value of $p$.

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The picture shows the Sky Tower in Auckland.
Alongside the tower is a boat. The boat is 33 metres long.
Use the length of the boat to estimate the height of the Sky Tower.

(a) In the spaces provided, write each number in this calculation correct to 1 significant figure.

Answer (a)

(b) Use your answer th part (a) to estimate the value of $p$.

