Standard form – 2020 O Level Math D
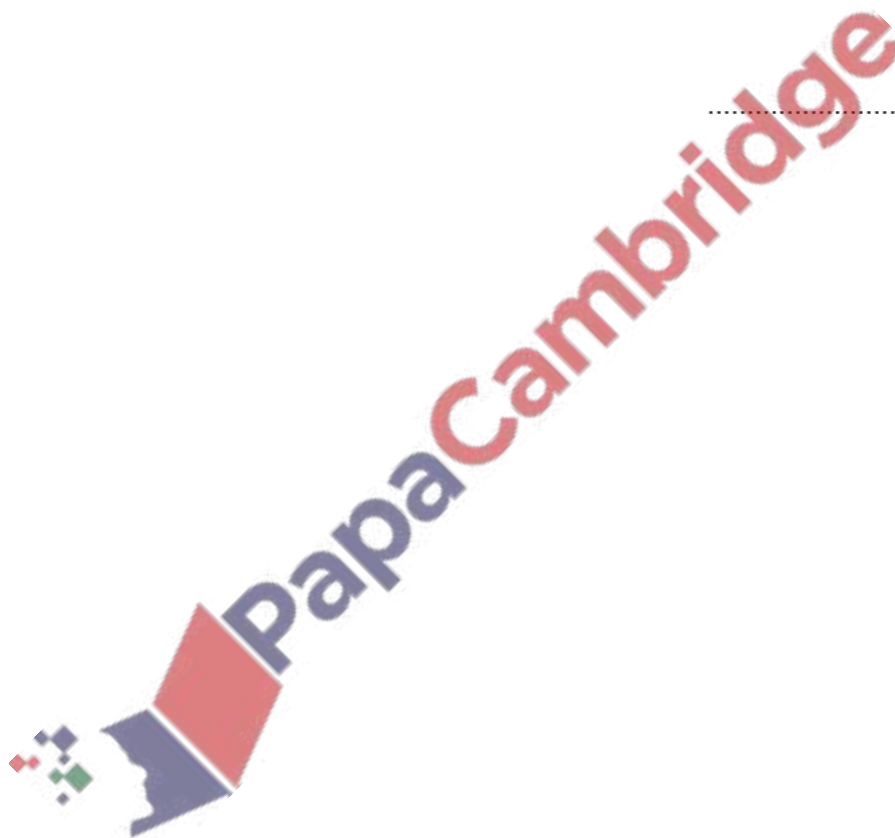
1.

   (a) Express 0.043×100^2 in standard form.

   .... [1]

   (b) Evaluate $\dfrac{1.2 \times 10^7}{2 \times 10^{-3}}$, giving your answer in standard form.

   .... [2]

2.

(a) Express $340\,000$ in standard form.

.... [1]

(b) Evaluate $\dfrac{4 \times 10^7}{8 \times 10^{21}}$, giving your answer in standard form.

.... [2]

(c) $7 \times 10^a - 3 \times 10^{a-1} = k \times 10^a$

Find k.

$k =$ .... [1]

2
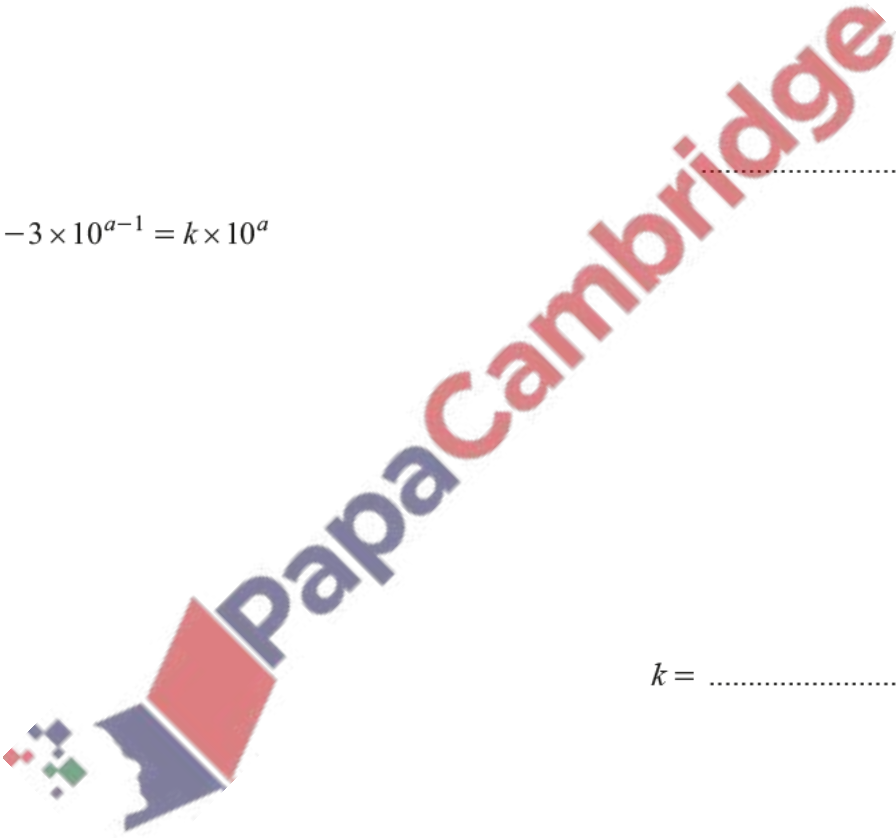
(a) In 2017, the population of Egypt was $97\,500\,000$.

Write this population in standard form.

.... [1]

(b) The population density of a country is the number of people per square kilometre.

In 2017, the population of Indonesia was 2.62×10^8, correct to 3 significant figures.
The area of Indonesia is $2 \times 10^6 \, km^2$, correct to 1 significant figure.

Calculate an estimate for the population density of Indonesia.

.... people/km^2 [2]