M1.

100(%) – 14(%) or 86(%)
or 1 – 0.14 or 0.86

Implied by 87 139(.5)

M1

101 325 × 0.86^4

oe
eg 101 325 × 0.86 or 87 139(.5)
and their 87 139(.5) × 0.86 or 74 939(.97)
and their 74 939(.97) × 0.86 or 64 448(.3742)
and their 64 448(.3742) × 0.86

A1

55 425(...)

May be implied by 55 000 or 55 400 or 55 430 or 55 426

A1

55 000

ft their answer rounded to 2sf

B1ft

[4]

M2. 1800 × 1.04 or 1872   *oe*

1800 × 1.04^n = 2000

M1

1800 × 1.04^2 or 1946.88 or 1946 or 1947   *oe*

Accept rounding [1946, 1947]
2000 ÷ 1800 = 1.04^n

M1dep

1800 × 1.04^3 or 2024.7 …   *oe*

Accept [2023, 2025]
Between 2 and 3 years

M1dep

3

Must not come from simple interest

A1

[4]

M3. Alternative Method 1

1.032 seen

M1

5000×1.032^3 *oe*

M1

5495.523…

May be implied

A1

5495.52

ft their answer rounded to 2 dp
SC1 5480

B1ft

Alternative method 2

$5000 + 5000 \times 0.032$ or 5160 *oe*

M1

their 5160 + their 5160 × 0.032

or 5325.12

and

their 5325.12 + their 5325.12 × 0.032

M1

5495.523…

May be implied

A1

5495.52

ft their answer rounded to 2 dp
SC1 5480

B1ft

[4]

M4.1.05 seen *oe*

B1

9 000 ÷ 1.05³

9 000 ÷ 1.05 (= 8571.(…))

M1

their 8571.(…) ÷ 1.05 (= 8163.(…))
their 8163.(…) ÷ 1.05 (= 7774.(…))

M1

7774.54 or 7774.55 or 7775

A1

Alternative method

1.05 seen *oe*

B1

Two trials correctly evaluated of the form *n* × 1.05³ with second trial closer to £9000

M1

Two trials correctly evaluated of the form $n \times 1.05^3$ with second trial closer to £9000

and

both values of n in range [7700, 7800]

                                               M1

7774.54 or 7774.55 or 7775

                                               A1
                                                  [4]

M5.(a) $1(.0) \times 10^{-6}$

                                               B1

(b)   50 000 000 000 000

                                             B1

(c) $4^3 = 2^6$
                $2^{10} = 4^5$

                                             M1

    their $2^6 \times 2 \times 2 \times 2 \times 2$
                $4^5 \div 4 \div 4$
                For this mark the correct number of 2s or 4s needed for their
                2^6 or their 4^5

                                             M1

    5
                SC1 answer only

                                             A1

    Alternative method 1

    64 and 128

Allow one arithmetical slip when multiplying by 2.

M1

64, 128, 256, 512 and 1024

Allow one arithmetical slip when multiplying by 2.

M1dep

5

If one arithmetical slip then A0
SC1 answer only

A1

Alternative method 2

64 and 1024

M1

1024 ÷ 64 =16   *oe*

M1

5

SC1 answer only

A1

[5]