SMART EXAM RESOURCES
TOPIC : NUMBERS
SUB-TOPIC:COMPOUND INTEREST
SET-2-QP-MS

1 Pedro invested $800 at a rate of 5% per year **compound** interest.
Calculate the **total** amount he has after 2 years.

Answer $ ..... [2]

MARK SCHEME:

882	**2**	**M1** 800 × 1.05 × 1.05

2 Acri invested $500 for 3 years at a rate of 2.8% per year compound interest.

Calculate the final amount he has after 3 years.

Answer $ ..... [3]

MARK SCHEME:

543.19	**3**	**M2** for 500×1.028^3 oe or long method or **M1** for 500×1.028^n, $n = 2$ or 4

3 Alex invests $200 for 2 years at a rate of 2% per year simple interest.
Chris invests $200 for 2 years at a rate of 2% per year compound interest.

Calculate how much more interest Chris has than Alex.

Answer $..... [4]

MARK SCHEME:

[0.]08	**4**	**M3** for $200\times\left(1+\frac{2}{100}\right)^2-200-\frac{200\times2\times2}{100}$ oe or **M1** for $200\times\left(1+\frac{2}{100}\right)^2$ **and M1** for $\frac{200\times2\times2}{100}$ [+200]

4 Maryah borrows $12 000 to start a business.
The loan is for 3 years at a rate of 5% per year compound interest.
The loan has to be paid back at the end of the 3 years.

Calculate the total amount to be paid back.

Answer $..... [3]

MARK SCHEME:

13891.5[0]	**3**	**M2** for $12000 \times \left(1 + \frac{5}{100}\right)^3$ oe or **M1** for $12000 \times \left(1 + \frac{5}{100}\right)^n$ oe $n \geqslant 2$