

Past-paper walk-through

Indices I ■ E1.7

eXercise

Questions in this set

- 0580/21 N25 Q6 ■ 4 marks
- 0580/22 N25 Q14 ■ 4 marks
- 0580/23 N25 Q12 ■ 8 marks
- 0580/21 J25 Q19 ■ 2 marks

Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- **//** separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = “or words to that effect” – the wording need not match.

Question 6

0580/21 N25 ■ Q6 ■ 4 marks

6 Find the value of

(a) $5^{-5} \times 5^5$

Question 6

(b) $125^{\frac{2}{3}}$.

[2]

Solution 6

(a)

Mark scheme

- 1 cao
- 1

Solution 6

(b) Mark scheme

- 25 cao
- 2 M1
- for (
-)
- 2
- 3 125
- or $3/2$ 125 or ()
- 2

Solution 6

- 3
- 3
- 5
- or B1 for 3 125
- = 5

Solution 14

(a)

Mark scheme

- 81
- 2 B1 for 34 or 32×9 or 9×9

Solution 14

(b) Mark scheme

- 1
64
- $\pm$
- 2 M1 for
- 3
- 1
- 4 or 64-1 or
- 1

Solution 14

- 4096
- S
- C
- 0.05
- 0.55
- 0.15
- 0.25
- S
- C
- 5

Solution 14

- 55
- 15
- 25
- 0580/22
- October/November 2025
- Partial Marks

Solution 12

(a)

Mark scheme

- 1
- 1

Solution 12

(b)

Mark scheme

- 63
- 2 (M1)
- for $3-2 = 1/9$ soi

Solution 12

(c)

Mark scheme

- 311
- 2 M1 for 33 or $(34)^2$ or better

Question 19

0580/21 J25 ■ Q19 ■ 2 marks

19 Find the value of $27 \times 3 \times 2$

2

[2]

Solution 19

Mark scheme

- 1
- 9
- 2 M1 for $9-1$ or for
- 2
- 1
- 3 or $3/1$ 729