

Past-paper walk-through

Rates ■ E1.12

eXercise

Questions in this set

- 0580/41 N25 Q11 ■ 2 marks
- 0580/42 N25 Q4 ■ 4 marks
- 0580/42 N25 Q5 ■ 1 mark
- 0580/42 N25 Q14 ■ 7 marks
- 0580/41 J25 Q8 ■ 4 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.

Solution 11

(a) Mark scheme

- 51
- 2 M1 for
- 100 15
- 60
- 100
- —
- ×
- oe

Solution 11

- or B1 for 9

Solution 11

(b) Mark scheme

- 68.40
- 2 M1 for [] 100 15 58.14
- 100
- —
- ×
- =
- oe

Question 4

0580/42 N25 ■ Q4 ■ 4 marks

4 Pedro makes cards.

(a) He makes cards at a rate of 9 cards every 20 minutes.

Work out the number of cards he makes in 8 hours.

Question 4

- (b) Each card costs 12 cents to make.
Pedro sells each card for 50 cents.

Work out his percentage profit on each card.

Solution 4

(a)

Mark scheme

- 216
- 2 M1 for $8 \times 60 \div 20$ oe
- or $9 \times 60 \div 20$ oe

Solution 4

(b) Mark scheme

- 317 or 316.6 to 316.7
- 2 M1 for
- 50 12
- 100
- 12
- —
- $\times$
- oe

Solution 4

- or for 50 100

- $12 \times$

-100 oe

Question 5

0580/42 N25 ■ Q5 ■ 1 mark

- 5** Nuwa is buying a phone.
One website sells the phone for 953 Yuan.
A different website sells the same phone for \$141.
The exchange rate is 1 Yuan = \$0.152 .

Calculate the difference between these phone prices.
Give your answer in dollars, correct to the nearest cent.

Question 5

Solution 5

Mark scheme

- 3.86 cao
- 2 M1 for 953×0.152 oe isw
- If 0 scored, SC1 for answer 25.4 or 25.36 to 25.37

Solution 14

(a) Mark scheme

- 27 223
- 2 M1
- for 24 000 $\times$
- 4
- 3.2
- 1 100
- (
-)

Solution 14

■ +

■ (

■)

■ (

■)

Solution 14

(b) Mark scheme

- 10 370
- 3 B2 for 30 500
- or M2 for 40 870
- 34
- 134
- $\times$
- oe
- or M1 for

Solution 14

■ 34

Solution 14

(c) Mark scheme

- $V = 32\,500 \times 0.77n$ final
- answer
- 3 B2 for answer $32\,500 \times 0.77n$
- or for correct explicit formula seen in working,
- may be unsimplified
- or M1 for $32\,500 \times (1 - 0.23)n$ oe seen
- or for correct implicit formula seen,
- may be unsimplified

Solution 14

- or answer of form $V = 32\,500 \times kn$
- or answer of form $V = p \times (0.77 \text{ oe})^n$
- 0580/42
- October/November 2025
- Partial Marks

Question 8

0580/41 J25 ■ Q8 ■ 4 marks

- 8** Hadi buys a dishwasher.
He can either pay a single payment of \$980 or he can pay using a monthly plan.
The monthly plan is 20% of \$980 **plus** 12 payments of \$75.25 .

(a) Hadi uses the monthly plan.

Calculate the total amount Hadi pays.

Question 8

- (b) Find the percentage increase in the cost using the monthly plan compared to a single payment.

Question 8

Solution 8

(a)

Mark scheme

- 1099
- 2 M1 for 20
- 100×980
- 0580/41
- May/June 2025
- Partial Marks

Solution 8

(b) Mark scheme

- 12.1 or 12.14...
- 2FT FT for 2 marks
- for
- 1099
- 1
- 100
- 980
- their

Solution 8

- (
-)
- —
- ×
- (
-)
- (
-)
- oe correctly
- evaluated to at least 3sf **M1**

Solution 8

- for
- 1099
- 980[100]
- 0
- 98
- their
- —
- ×
- or for
- 1099

Solution 8

- 1
- 100
- 980
- their
- (
-)
- —
- ×
- (
-)

Solution 8

- (
-)
- or for
- 1099
- 980 100[100]
- 80
- 9
- their
- —
- ×

Solution 8

- —
- 9
- 475
- 2 M1 for
- 8
- 38
- 100
- $\times$
- =
- $\times$

Solution 8

- or for $38/8 \times 100$ oe