# Review 1 - Numbers & Algebra January 2018

**1.** Markscheme



***(A1)(A1)(A1)(A1)(A2) (C6)***
**Row 2 to row 5:** Award ***(A1)*** for each correct row.
**Row 6:** Award ***(A1)*** for both  **not** selected **and**  selected; award ***(A1)*** for both  **and**  selected. Do not penalize if crosses (or similar) appear in the empty cells.

**2.** Markscheme


**3.** *[6 marks]*

## Markscheme



***(A1)*** for  column correct.

***(A2)*** for  column correct, award ***(A1)*** if one is missing, award ***(A0)*** if two or more missing.

***(A3)*** for  column correct, award ***(A2)*** for two correctly placed and no extra entries, award ***(A1)*** for one correctly placed and no extra entries or placed in all entries. ***(A6)*** ***(C6)***

 **4.** Markscheme



Award ***(A1)*** for each number placed once in the correct section. Accept equivalent forms for numbers.

**5.** Markscheme



**Note:** Accept any symbol for ticks. Do not penalize if candidate had also indicated, by a different symbol, that the number is not an element of the set.

Row  correct, no extra entries. ***(A1) (C1)***

Row  ***(A1)(A1) (C2)***

**Note:** Award ***(A1)*** for each correct tick and no extra entries. Award ***(A1)*** only for both ticks correct and 1 extra entry, ***(A0)*** otherwise.

Row  ***(A1)(A1)(A1) (C3)***

**Note:** Award ***(A1)*** for each correct tick and no extra entries. Award ***(A2)*** only for all 3 correct and one extra entry. Award ***(A1)*** only for 2 correct and one extra entry. ***(A0)*** otherwise.

***[6 marks]***

 **6a.**

## Markscheme

 ***(A1) (C1)***

***[1 mark]***

 **6b.**

## Markscheme

 ***(A1) (C1)***

***[1 mark]***

 **6c.**

## Markscheme

 ***(A1)*(ft)*(A1)*(ft) *(C2)***

**Note:** Follow through from parts (a) and (b) irrespective of working seen, **but only** if both values are positive integers.

Award ***(M1)(A0)*** for a reasonable attempt to solve simultaneous equations algebraically, leading to at least one incorrect or missing value.

***[2 marks]***

 **6d.**

## Markscheme

 ***(M1)***

**Note:** Award ***(M1)*** for correct substitution into percentage error formula.

 ***(A1) (C2)***

***[2 marks]***

 **7a**

## Markscheme

*k* = 2.034 × 0.632 ***(M1)***

= 1.29 (1 GBP = 1.29 EUR) ***(A1)*** ***(C2)***

**Note:** Accept 1.29 only

***[2 marks]***

 **7b.**

## Markscheme

***Financial penalty (FP) applies in part (b).***

400 × 0.632 ***(M1)***

= 252.80 EUR***(A1)***

2 % of 252.80 = 5.06 EUR***(A1)***

***(FP)*** She receives 247.74 EUR***(A1)***

**OR**

***(FP)*** 0.98 × 252.80 = 247.74 EUR***(A1)(A1)(C4)***

**Note:** Accept ***(A1)*** for 0.98 seen.

***[4 marks]***

 **8a.**

## Markscheme

*Financial accuracy penalty* ***(FP)*** *is applicable where indicated in the left hand column.*

Multiplying  by  or  ***(M1)***

***(FP)***  ***(A1) (C2)***

***[2 marks]***

 **8b.**

## Markscheme

*Financial accuracy penalty* ***(FP)*** *is applicable where indicated in the left hand column.*

Dividing by  or  ***(M1)***

***(FP)***  ***(A1) (C2)***

**Note:** If candidate has divided in (a) and multiplied in (b) award ***(M1)(A1)*(ft)** for  in (b).

***[2 marks]***

 **8c.**

## Markscheme

*Financial accuracy penalty* ***(FP)*** *is applicable where indicated in the left hand column.*

***(FP)***  *allow*  *and/or* ***(M1)***

 ***(A1) (C2)***

**Note:** The ***(M1)*** is being allowed for misreading values from the table but do not **(ft)** to candidate’s answers.

***[2 marks]***

 **9a.**

## Markscheme

 ***(M1)(M1)***

**Note:** Award ***(M1)*** for subtracting 5 from 85, ***(M1)*** for multiplying by 3.25.

Award ***(M1)*** for , ***(M1)*** for subtracting .

 ***(A1)*** ***(C3)***

***[3 marks]***

 **9b.**

## Markscheme

 ***(M1)(M1)***

**Note:** Award ***(M1)*** for multiplying by 0.96 (or equivalent), ***(M1)*** for dividing by 9.6. If division by 3.25 seen in part (a), condone multiplication by 9.6 in part (b).

 ***(A1)*** ***(C3)***

***[3 marks]***

 **10a.**

## Markscheme

 ***(M1)(M1)***

**Note:** Award ***(M1)*** for multiplying 8000 by 0.09819, ***(M1)*** for multiplying by 0.98 (or equivalent).

769.81 (EUR) ***(A1)*** ***(C3)***

***[3 marks]***

 **10b.**

## Markscheme

 ***(M1)(M1)***

**Note:** Award ***(M1)*** for dividing 85 by 0.08753, and ***(M1)*** for multiplying their  by  and equating to 14.57.

**OR**

 ***(M1)***

**Note:** Award ***(M1)*** for dividing 85 by 0.08753.

**OR** ***(M1)***

**Note:** Award ***(M1)*** for dividing 14.57 by 9.71095… or equivalent.

 ***(A1)*** ***(C3)***

***[3 marks]***

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