# 2.87 Divisibility Rules and Number Property Puzzles: 10-minute Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** Which of these numbers is divisible by 15?

- ☐ A) 155
- ☐ B) 294
- ☐ C) 710
- ☐ D) 615
- ☐ E) 147

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**2** The number 8997* is divisible by 9, where * stands for one digit. What is the digit?

- ☐ A) 0
- ☐ B) 9
- ☐ C) 3
- ☐ D) 7
- ☐ E) 4

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**3** Which of these numbers is divisible by 36?

- ☐ A) 1584
- ☐ B) 160
- ☐ C) 333
- ☐ D) 536
- ☐ E) 243


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**4** Which of these numbers is divisible by 30?

- [ ] A) 444
- [ ] B) 138
- [ ] C) 730
- [ ] D) 145
- [ ] E) 1560

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**5** The number 5178* is divisible by 9, where * stands for one digit. What is the digit?

- [ ] A) 9
- [ ] B) 6
- [ ] C) 5
- [ ] D) 0
- [ ] E) 7

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**6** Which of these numbers is divisible by 6?

- [ ] A) 308
- [ ] B) 633
- [ ] C) 621
- [ ] D) 294
- [ ] E) 584

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**7** Which of these numbers is divisible by 24?

- [ ] A) 328
- [ ] B) 360
- [ ] C) 993
- [ ] D) 321
- [ ] E) 448

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**8** The number 7*64 is divisible by 9, where * stands for one digit. What is the digit?

- [ ] A) 4
- [ ] B) 9
- [ ] C) 3
- [ ] D) 7
- [ ] E) 1


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**9** Find the smallest positive integer greater than 10 that leaves remainder 2 when divided by both 4 and 6.

**(1)**

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**10** Find the number between 200 and 300 that is divisible by 7, whose digits add to 10, and which is an odd number.

**(2)**


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# Mark scheme · 2.87 Divisibility Rules and Number Property Puzzles: 10-minute Pack

## Question 1

correct option D (615) cao **B1**

**Answer: D) 615**

## Question 2

correct option C (3) cao **B1**

**Answer: C) 3**

## Question 3

correct option A (1584) cao **B1**

**Answer: A) 1584**

## Question 4

correct option E (1560) cao **B1**

**Answer: E) 1560**

## Question 5

correct option B (6) cao **B1**

**Answer: B) 6**

## Question 6

correct option D (294) cao **B1**

**Answer: D) 294**

## Question 7

correct option B (360) cao **B1**

**Answer: B) 360**

## Question 8

correct option E (1) cao **B1**

**Answer: E) 1**

## Question 9

14 cao **B1**

**Answer: 14**

## Question 10

Show a candidate multiple of 7 in the 200s with digit sum 10 (eg 217) or systematic check of 7-multiples **M1**

217 cao **A1**

**Answer: 217**


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