2.85 Factors, Multiples and Primes Puzzle Set: 2-hour Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 120 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Which of these numbers is a prime number?

- ☐ A) 91
- ☐ B) 41
- ☐ C) 121
- ☐ D) 51
- ☐ E) 115

---

2 How many factors does 40 have? (Include 1 and 40.)

- ☐ A) 6
- ☐ B) 4
- ☐ C) 8
- ☐ D) 7
- ☐ E) 9

---

3 What is the highest common factor of 160 and 208?

- ☐ A) 16
- ☐ B) 2,080
- ☐ C) 160
- ☐ D) 8
- ☐ E) 33,280

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4 What is the lowest common multiple of 20 and 15?

- [ ] A) 5
- [ ] B) 120
- [ ] C) 300
- [ ] D) 60
- [ ] E) 40

---

5 Write 200 as a product of its prime factors.

- [ ] A) 2 x 5
- [ ] B) 8 x 25
- [ ] C) $2^4 \times 5^2$
- [ ] D) $2^2 \times 5^3$
- [ ] E) $2^3 \times 5^2$

---

6 How many factors does 143 have? (Include 1 and 143.)

- [ ] A) 4
- [ ] B) 5
- [ ] C) 40
- [ ] D) 3
- [ ] E) 2

---

7 Which of these numbers is a prime number?

- [ ] A) 113
- [ ] B) 51
- [ ] C) 65
- [ ] D) 63
- [ ] E) 49

---

8 What is the highest common factor of 72 and 99?

- [ ] A) 72
- [ ] B) 792
- [ ] C) 9
- [ ] D) 27
- [ ] E) 7,128

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9 Two buses leave the station together at noon. One does so every 25 minutes and the other every 10 minutes. After how many minutes will they next do so together?

- [ ] A) 250
- [ ] B) 35
- [ ] C) 100
- [ ] D) 50
- [ ] E) 5

---

10 Write 24 as a product of its prime factors.

- [ ] A) 2 x 3
- [ ] B) 2^3 x 3
- [ ] C) 2 x 3^3
- [ ] D) 8 x 8
- [ ] E) 2^2 x 3

---

11 Which of these numbers is a prime number?

- [ ] A) 51
- [ ] B) 27
- [ ] C) 21
- [ ] D) 39
- [ ] E) 109

---

12 How many factors does 129 have? (Include 1 and 129.)

- [ ] A) 40
- [ ] B) 5
- [ ] C) 4
- [ ] D) 3
- [ ] E) 2

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13 What is the highest common factor of 170 and 110?

- ☐ A) 60
- ☐ B) 1,870
- ☐ C) 110
- ☐ D) 10
- ☐ E) 18,700

---

14 What is the highest common factor of 192 and 112?

- ☐ A) 80
- ☐ B) 112
- ☐ C) 1,344
- ☐ D) 16
- ☐ E) 8

---

15 Which of these numbers is a prime number?

- ☐ A) 119
- ☐ B) 63
- ☐ C) 121
- ☐ D) 143
- ☐ E) 13

---

16 How many factors does 145 have? (Include 1 and 145.)

- ☐ A) 4
- ☐ B) 2
- ☐ C) 5
- ☐ D) 3
- ☐ E) 40

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17 Aisha has two ribbons, 56 cm and 48 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 336
- [ ] B) 8
- [ ] C) 4
- [ ] D) 2,688
- [ ] E) 48

---

18 Two lighthouses flash together at noon. One does so every 5 seconds and the other every 14 seconds. After how many seconds will they next do so together?

- [ ] A) 1
- [ ] B) 140
- [ ] C) 70
- [ ] D) 28
- [ ] E) 71

---

19 Which of these numbers is a prime number?

- [ ] A) 21
- [ ] B) 65
- [ ] C) 87
- [ ] D) 121
- [ ] E) 127

---

20 How many different factors does 48 have?

- [ ] A) 9
- [ ] B) 2
- [ ] C) 8
- [ ] D) 10
- [ ] E) 11

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21 What is the lowest common multiple of 25 and 21?

- ☐ A) 1,050
- ☐ B) 525
- ☐ C) 526
- ☐ D) 524
- ☐ E) 1

---

22 Which of these numbers is a prime number?

- ☐ A) 131
- ☐ B) 119
- ☐ C) 39
- ☐ D) 51
- ☐ E) 77

---

23 How many different factors does 44 have?

- ☐ A) 4
- ☐ B) 2
- ☐ C) 5
- ☐ D) 6
- ☐ E) 7

---

24 What is the highest common factor of 68 and 64?

- ☐ A) 2
- ☐ B) 4
- ☐ C) 64
- ☐ D) 4,352
- ☐ E) 1,088

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25 Two buses leave the station together at noon. One does so every 20 minutes and the other every 14 minutes. After how many minutes will they next do so together?

- [ ] A) 40
- [ ] B) 139
- [ ] C) 280
- [ ] D) 2
- [ ] E) 140

---

26 Which of these numbers is a prime number?

- [ ] A) 127
- [ ] B) 87
- [ ] C) 33
- [ ] D) 115
- [ ] E) 27

---

27 What is the highest common factor of 21 and 56?

- [ ] A) 1,176
- [ ] B) 168
- [ ] C) 8
- [ ] D) 7
- [ ] E) 21

---

28 Two bells ring together at noon. One rings every 14 minutes and the other every 12 minutes. After how many minutes will they next ring together?

- [ ] A) 85
- [ ] B) 83
- [ ] C) 168
- [ ] D) 2
- [ ] E) 84

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29 Which of these numbers is a prime number?

- ☐ A) 63
- ☐ B) 91
- ☐ C) 53
- ☐ D) 85
- ☐ E) 39

---

30 How many factors does 76 have? (Include 1 and 76.)

- ☐ A) 6
- ☐ B) 5
- ☐ C) 4
- ☐ D) 2
- ☐ E) 3

---

31 What is the highest common factor of 16 and 120?

- ☐ A) 1,920
- ☐ B) 8
- ☐ C) 240
- ☐ D) 16
- ☐ E) 4

---

32 Two bells ring together at noon. One rings every 20 minutes and the other every 18 minutes. After how many minutes will they next ring together?

- ☐ A) 360
- ☐ B) 38
- ☐ C) 40
- ☐ D) 180
- ☐ E) 2

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33 Write 90 as a product of its prime factors.

- ☐ A) $2 \times 3^2 \times 5$
- ☐ B) $2 \times 3 \times 5$
- ☐ C) $2^2 \times 3^2 \times 5$
- ☐ D) $3^2 \times 5$
- ☐ E) $2^2 \times 3 \times 5$

---

34 How many different factors does 38 have?

- ☐ A) 2
- ☐ B) 3
- ☐ C) 5
- ☐ D) 40
- ☐ E) 4

---

35 What is the highest common factor of 66 and 54?

- ☐ A) 6
- ☐ B) 594
- ☐ C) 3
- ☐ D) 54
- ☐ E) 12

---

36 What is the lowest common multiple of 21 and 8?

- ☐ A) 42
- ☐ B) 336
- ☐ C) 168
- ☐ D) 1
- ☐ E) 167

---

37 How many different factors does 12 have?

- ☐ A) 3
- ☐ B) 5
- ☐ C) 6
- ☐ D) 4
- ☐ E) 7

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38 Kwame has two ribbons, 18 cm and 14 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 1
- [ ] B) 126
- [ ] C) 4
- [ ] D) 14
- [ ] E) 2

---

39 What is the lowest common multiple of 9 and 20?

- [ ] A) 181
- [ ] B) 29
- [ ] C) 360
- [ ] D) 180
- [ ] E) 1

---

40 How many factors does 136 have? (Include 1 and 136.)

- [ ] A) 2
- [ ] B) 7
- [ ] C) 8
- [ ] D) 6
- [ ] E) 9

---

41 Which of these numbers is a prime number?

- [ ] A) 59
- [ ] B) 27
- [ ] C) 133
- [ ] D) 119
- [ ] E) 87

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42 What is the highest common factor of 117 and 81?

- ☐ A) 81
- ☐ B) 10
- ☐ C) 1,053
- ☐ D) 9
- ☐ E) 9,477

---

43 What is the lowest common multiple of 14 and 6?

- ☐ A) 84
- ☐ B) 42
- ☐ C) 41
- ☐ D) 2
- ☐ E) 20

---

44 Which of these numbers is a prime number?

- ☐ A) 103
- ☐ B) 63
- ☐ C) 95
- ☐ D) 133
- ☐ E) 143

---

45 How many different factors does 108 have?

- ☐ A) 10
- ☐ B) 6
- ☐ C) 2
- ☐ D) 11
- ☐ E) 12

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46 Ewan has two ribbons, 156 cm and 132 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- ☐ A) 20,592
- ☐ B) 12
- ☐ C) 24
- ☐ D) 1,716
- ☐ E) 132

---

47 Which of these numbers is a prime number?

- ☐ A) 21
- ☐ B) 143
- ☐ C) 109
- ☐ D) 87
- ☐ E) 85

---

48 How many different factors does 98 have?

- ☐ A) 6
- ☐ B) 7
- ☐ C) 3
- ☐ D) 5
- ☐ E) 4

---

49 Harry has two ribbons, 10 cm and 26 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- ☐ A) 10
- ☐ B) 1
- ☐ C) 130
- ☐ D) 2
- ☐ E) 260

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50 How many factors does 93 have? (Include 1 and 93.)

- [ ] A) 40
- [ ] B) 2
- [ ] C) 5
- [ ] D) 4
- [ ] E) 3

---

51 Which of these numbers is a prime number?

- [ ] A) 49
- [ ] B) 21
- [ ] C) 91
- [ ] D) 133
- [ ] E) 17

---

52 How many factors does 126 have? (Include 1 and 126.)

- [ ] A) 11
- [ ] B) 6
- [ ] C) 13
- [ ] D) 12
- [ ] E) 10

---

53 What is the lowest common multiple of 30 and 9?

- [ ] A) 91
- [ ] B) 270
- [ ] C) 90
- [ ] D) 3
- [ ] E) 39

---

54 Which of these numbers is a prime number?

- [ ] A) 63
- [ ] B) 53
- [ ] C) 121
- [ ] D) 133
- [ ] E) 21

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55 How many different factors does 82 have?

- [ ] A) 3
- [ ] B) 2
- [ ] C) 5
- [ ] D) 40
- [ ] E) 4

---

56 What is the highest common factor of 104 and 88?

- [ ] A) 9,152
- [ ] B) 16
- [ ] C) 8
- [ ] D) 1,144
- [ ] E) 88

---

57 What is the lowest common multiple of 20 and 12?

- [ ] A) 4
- [ ] B) 59
- [ ] C) 240
- [ ] D) 60
- [ ] E) 61

---

58 Which of these numbers is a prime number?

- [ ] A) 131
- [ ] B) 77
- [ ] C) 63
- [ ] D) 95
- [ ] E) 115

---

59 How many different factors does 130 have?

- [ ] A) 3
- [ ] B) 7
- [ ] C) 6
- [ ] D) 4
- [ ] E) 8

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60 What is the highest common factor of 88 and 120?

- [ ] A) 8
- [ ] B) 1,320
- [ ] C) 88
- [ ] D) 4
- [ ] E) 32

---

61 Two bells ring together at noon. One rings every 24 minutes and the other every 21 minutes. After how many minutes will they next ring together?

- [ ] A) 3
- [ ] B) 167
- [ ] C) 504
- [ ] D) 168
- [ ] E) 336

---

62 Which of these numbers is a prime number?

- [ ] A) 55
- [ ] B) 59
- [ ] C) 65
- [ ] D) 143
- [ ] E) 57

---

63 Megan has two ribbons, 234 cm and 108 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 1,404
- [ ] B) 25,272
- [ ] C) 108
- [ ] D) 18
- [ ] E) 126

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64 What is the lowest common multiple of 24 and 30?

- [ ] A) 720
- [ ] B) 120
- [ ] C) 121
- [ ] D) 119
- [ ] E) 6

---

65 Which of these numbers is a prime number?

- [ ] A) 85
- [ ] B) 121
- [ ] C) 109
- [ ] D) 95
- [ ] E) 119

---

66 Aisha has two ribbons, 48 cm and 84 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 12
- [ ] B) 48
- [ ] C) 336
- [ ] D) 4,032
- [ ] E) 6

---

67 Two bells ring together at noon. One rings every 25 minutes and the other every 9 minutes. After how many minutes will they next ring together?

- [ ] A) 1
- [ ] B) 50
- [ ] C) 225
- [ ] D) 226
- [ ] E) 450

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68 Two bells ring together at noon. One rings every 14 minutes and the other every 10 minutes. After how many minutes will they next ring together?

- [ ] A) 28
- [ ] B) 140
- [ ] C) 70
- [ ] D) 2
- [ ] E) 24

---

69 Which of these numbers is a prime number?

- [ ] A) 27
- [ ] B) 91
- [ ] C) 39
- [ ] D) 121
- [ ] E) 89

---

70 How many factors does 70 have? (Include 1 and 70.)

- [ ] A) 8
- [ ] B) 6
- [ ] C) 9
- [ ] D) 7
- [ ] E) 4

---

71 Aisha has two ribbons, 56 cm and 182 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 10,192
- [ ] B) 56
- [ ] C) 14
- [ ] D) 126
- [ ] E) 728

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72 Two bells ring together at noon. One rings every 21 minutes and the other every 5 minutes. After how many minutes will they next ring together?

- ☐ A) 1
- ☐ B) 210
- ☐ C) 26
- ☐ D) 105
- ☐ E) 106

---

73 How many different factors does 80 have?

- ☐ A) 10
- ☐ B) 2
- ☐ C) 8
- ☐ D) 9
- ☐ E) 5

---

74 What is the highest common factor of 72 and 27?

- ☐ A) 10
- ☐ B) 9
- ☐ C) 27
- ☐ D) 45
- ☐ E) 216

---

75 What is the lowest common multiple of 10 and 3?

- ☐ A) 1
- ☐ B) 31
- ☐ C) 29
- ☐ D) 60
- ☐ E) 30

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76 Which of these numbers is a prime number?

- ☐ A) 143
- ☐ B) 27
- ☐ C) 85
- ☐ D) 41
- ☐ E) 57

---

77 How many different factors does 133 have?

- ☐ A) 4
- ☐ B) 40
- ☐ C) 2
- ☐ D) 5
- ☐ E) 3

---

78 Esme has two ribbons, 4 cm and 22 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- ☐ A) 44
- ☐ B) 2
- ☐ C) 4
- ☐ D) 88
- ☐ E) 18

---

79 Write 392 as a product of its prime factors.

- ☐ A) $2^2 \times 7^2$
- ☐ B) 8 x 49
- ☐ C) $2^2 \times 7^3$
- ☐ D) $2^3 \times 7^2$
- ☐ E) 2 x 7

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80 Which of these numbers is a prime number?

- [ ] A) 121
- [ ] B) 95
- [ ] C) 77
- [ ] D) 143
- [ ] E) 109

---

81 How many factors does 60 have? (Include 1 and 60.)

- [ ] A) 10
- [ ] B) 12
- [ ] C) 6
- [ ] D) 11
- [ ] E) 3

---

82 Chloe has two ribbons, 36 cm and 8 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 8
- [ ] B) 28
- [ ] C) 4
- [ ] D) 288
- [ ] E) 72

---

83 Two buses leave the station together at noon. One does so every 21 minutes and the other every 4 minutes. After how many minutes will they next do so together?

- [ ] A) 84
- [ ] B) 1
- [ ] C) 85
- [ ] D) 42
- [ ] E) 168

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84 Write 40 as a product of its prime factors.

- ☐ A) 2^3
- ☐ B) 2×5^3
- ☐ C) $2^3 \times 5$
- ☐ D) 5×8
- ☐ E) 2×5

---

85 How many different factors does 78 have?

- ☐ A) 9
- ☐ B) 8
- ☐ C) 6
- ☐ D) 3
- ☐ E) 7

---

86 What is the highest common factor of 70 and 84?

- ☐ A) 420
- ☐ B) 5,880
- ☐ C) 7
- ☐ D) 70
- ☐ E) 14

---

87 What is the lowest common multiple of 21 and 15?

- ☐ A) 104
- ☐ B) 106
- ☐ C) 105
- ☐ D) 3
- ☐ E) 315

---

88 Which of these numbers is a prime number?

- ☐ A) 85
- ☐ B) 39
- ☐ C) 91
- ☐ D) 131
- ☐ E) 133

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89 How many different factors does 46 have?

- [ ] A) 4
- [ ] B) 3
- [ ] C) 5
- [ ] D) 2
- [ ] E) 40

---

90 Sienna has two ribbons, 24 cm and 152 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 456
- [ ] B) 8
- [ ] C) 3,648
- [ ] D) 128
- [ ] E) 24

---

91 Write 36 as a product of its prime factors.

- [ ] A) 2×3^2
- [ ] B) 2×3
- [ ] C) $2^2 \times 3^2$
- [ ] D) 4×9
- [ ] E) $2^3 \times 3^2$

---

92 Which of these numbers is a prime number?

- [ ] A) 57
- [ ] B) 61
- [ ] C) 51
- [ ] D) 65
- [ ] E) 33

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93 How many different factors does 118 have?

- [ ] A) 5
- [ ] B) 3
- [ ] C) 2
- [ ] D) 4
- [ ] E) 40

---

94 What is the highest common factor of 168 and 264?

- [ ] A) 24
- [ ] B) 1,848
- [ ] C) 12
- [ ] D) 168
- [ ] E) 96

---

95 Two buses leave the station together at noon. One does so every 10 minutes and the other every 18 minutes. After how many minutes will they next do so together?

- [ ] A) 2
- [ ] B) 89
- [ ] C) 180
- [ ] D) 90
- [ ] E) 36

---

96 Write 675 as a product of its prime factors.

- [ ] A) $3^2 \times 5^3$
- [ ] B) 27 x 27
- [ ] C) $3^3 \times 5^2$
- [ ] D) $3^4 \times 5^2$
- [ ] E) 5^2

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97 How many different factors does 24 have?

- [ ] A) 8
- [ ] B) 2
- [ ] C) 7
- [ ] D) 6
- [ ] E) 4

---

98 What is the highest common factor of 91 and 14?

- [ ] A) 182
- [ ] B) 7
- [ ] C) 1,274
- [ ] D) 14
- [ ] E) 8

---

99 What is the lowest common multiple of 10 and 4?

- [ ] A) 40
- [ ] B) 20
- [ ] C) 19
- [ ] D) 21
- [ ] E) 2

---

100 Which of these numbers is a prime number?

- [ ] A) 17
- [ ] B) 51
- [ ] C) 27
- [ ] D) 65
- [ ] E) 87

---

101 How many different factors does 104 have?

- [ ] A) 6
- [ ] B) 2
- [ ] C) 9
- [ ] D) 7
- [ ] E) 8

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102 Two buses leave the station together at noon. One does so every 8 minutes and the other every 15 minutes. After how many minutes will they next do so together?

- [ ] A) 30
- [ ] B) 120
- [ ] C) 119
- [ ] D) 240
- [ ] E) 1

---

103 Write 441 as a product of its prime factors.

- [ ] A) 3 x 7
- [ ] B) 3 x 7^2
- [ ] C) 3^2 x 7^2
- [ ] D) 3^3 x 7^2
- [ ] E) 9 x 9

---

104 Which of these numbers is a prime number?

- [ ] A) 43
- [ ] B) 39
- [ ] C) 133
- [ ] D) 55
- [ ] E) 143

---

105 How many factors does 88 have? (Include 1 and 88.)

- [ ] A) 9
- [ ] B) 7
- [ ] C) 4
- [ ] D) 6
- [ ] E) 8

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106 Fatima has two ribbons, 168 cm and 204 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 34,272
- [ ] B) 6
- [ ] C) 168
- [ ] D) 12
- [ ] E) 2,856

---

107 Two lighthouses flash together at noon. One does so every 9 seconds and the other every 10 seconds. After how many seconds will they next do so together?

- [ ] A) 1
- [ ] B) 91
- [ ] C) 180
- [ ] D) 20
- [ ] E) 90

---

108 Write 216 as a product of its prime factors.

- [ ] A) 2 x 3
- [ ] B) 3^3
- [ ] C) 2^4 x 3^3
- [ ] D) 2^3 x 3^3
- [ ] E) 8 x 8

---

109 How many factors does 52 have? (Include 1 and 52.)

- [ ] A) 6
- [ ] B) 2
- [ ] C) 3
- [ ] D) 5
- [ ] E) 4

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110 What is the highest common factor of 81 and 45?

- [ ] A) 10
- [ ] B) 3,645
- [ ] C) 9
- [ ] D) 45
- [ ] E) 405

---

111 Two bells ring together at noon. One rings every 12 minutes and the other every 20 minutes. After how many minutes will they next ring together?

- [ ] A) 240
- [ ] B) 61
- [ ] C) 4
- [ ] D) 60
- [ ] E) 59

---

112 Which of these numbers is a prime number?

- [ ] A) 59
- [ ] B) 39
- [ ] C) 57
- [ ] D) 115
- [ ] E) 33

---

113 How many different factors does 99 have?

- [ ] A) 5
- [ ] B) 4
- [ ] C) 6
- [ ] D) 3
- [ ] E) 2

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114 What is the highest common factor of 80 and 144?

- [ ] A) 80
- [ ] B) 720
- [ ] C) 8
- [ ] D) 11,520
- [ ] E) 16

---

115 Write 20 as a product of its prime factors.

- [ ] A) 4 x 5
- [ ] B) 2^3 x 5
- [ ] C) 2^2 x 5
- [ ] D) 2 x 5^2
- [ ] E) 2^2

---

116 Which of these numbers is a prime number?

- [ ] A) 87
- [ ] B) 133
- [ ] C) 57
- [ ] D) 39
- [ ] E) 103

---

117 How many different factors does 112 have?

- [ ] A) 10
- [ ] B) 11
- [ ] C) 9
- [ ] D) 2
- [ ] E) 8

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118 Tariq has two ribbons, 42 cm and 48 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 336
- [ ] B) 6
- [ ] C) 42
- [ ] D) 2,016
- [ ] E) 3

---

119 What is the lowest common multiple of 9 and 4?

- [ ] A) 37
- [ ] B) 36
- [ ] C) 72
- [ ] D) 18
- [ ] E) 1

---

120 Write 50 as a product of its prime factors.

- [ ] A) 2 x 5
- [ ] B) 2^2 x 5^2
- [ ] C) 2^2 x 5
- [ ] D) 2 x 25
- [ ] E) 2 x 5^2

---

121 Which of these numbers is a prime number?

- [ ] A) 87
- [ ] B) 77
- [ ] C) 11
- [ ] D) 143
- [ ] E) 57

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122 Arjun has two ribbons, 42 cm and 54 cm long, and cuts both into equal pieces with no ribbon left over. What is the greatest possible length of each piece, in cm?

- [ ] A) 6
- [ ] B) 42
- [ ] C) 3
- [ ] D) 378
- [ ] E) 12

---

123 Two bells ring together at noon. One rings every 4 minutes and the other every 6 minutes. After how many minutes will they next ring together?

- [ ] A) 2
- [ ] B) 12
- [ ] C) 10
- [ ] D) 24
- [ ] E) 11

---

124 Write 250 as a product of its prime factors.

- [ ] A) 2 x 5
- [ ] B) 2
- [ ] C) 2 x 125
- [ ] D) 2^3 x 5
- [ ] E) 2 x 5^3

---

125 Which of these numbers is a prime number?

- [ ] A) 67
- [ ] B) 33
- [ ] C) 51
- [ ] D) 87
- [ ] E) 115

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126 How many different factors does 146 have?

- [ ] A) 40
- [ ] B) 5
- [ ] C) 2
- [ ] D) 4
- [ ] E) 3

---

127 What is the highest common factor of 154 and 70?

- [ ] A) 10,780
- [ ] B) 70
- [ ] C) 14
- [ ] D) 770
- [ ] E) 84

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Mark scheme · 2.85 Factors, Multiples and Primes Puzzle Set: 2-hour Pack

Question 1

correct option B (41) cao **B1**

Answer: B) 41

Question 2

correct option C (8) cao **B1**

Answer: C) 8

Question 3

correct option A (16) cao **B1**

Answer: A) 16

Question 4

correct option D (60) cao **B1**

Answer: D) 60

Question 5

correct option E (2^3 x 5^2) cao **B1**

Answer: E) 2^3 x 5^2

Question 6

correct option A (4) cao **B1**

Answer: A) 4

Question 7

correct option A (113) cao **B1**

Answer: A) 113

Question 8

correct option C (9) cao **B1**

Answer: C) 9

Question 9

correct option D (50) cao **B1**

Answer: D) 50

Question 10

correct option B (2^3 x 3) cao **B1**

Answer: B) 2^3 x 3

Question 11

correct option E (109) cao **B1**

Answer: E) 109

Question 12

correct option C (4) cao **B1**

Answer: C) 4

Question 13

correct option D (10) cao **B1**

Answer: D) 10

Question 14

correct option D (16) cao **B1**

Answer: D) 16

Question 15

correct option E (13) cao **B1**

Answer: E) 13

Question 16

correct option A (4) cao **B1**

Answer: A) 4

Question 17

correct option B (8) cao **B1**

Answer: B) 8

Question 18

correct option C (70) cao **B1**

Answer: C) 70

Question 19

correct option E (127) cao **B1**

Answer: E) 127

Question 20

correct option D (10) cao **B1**

Answer: D) 10

Question 21

correct option B (525) cao **B1**

Answer: B) 525

Question 22

correct option A (131) cao **B1**

Answer: A) 131

Question 23

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

Answer: D) 6

Question 24

correct option B (4) cao **B1**

Answer: B) 4

Question 25

correct option E (140) cao **B1**

Answer: E) 140

Question 26

correct option A (127) cao **B1**

Answer: A) 127

Question 27

correct option D (7) cao **B1**

Answer: D) 7

Question 28

correct option E (84) cao **B1**

Answer: E) 84

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Question 29

correct option C (53) cao **B1**

Answer: C) 53

Question 30

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

Answer: A) 6

Question 31

correct option B (8) cao **B1**

Answer: B) 8

Question 32

correct option D (180) cao **B1**

Answer: D) 180

Question 33

correct option A ($2 \times 3^2 \times 5$) cao **B1**

Answer: A) $2 \times 3^2 \times 5$

Question 34

correct option E (4) cao **B1**

Answer: E) 4

Question 35

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

Answer: A) 6

Question 36

correct option C (168) cao **B1**

Answer: C) 168

Question 37

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

Answer: C) 6

Question 38

correct option E (2) cao **B1**

Answer: E) 2

Question 39

correct option D (180) cao **B1**

Answer: D) 180

Question 40

correct option C (8) cao **B1**

Answer: C) 8

Question 41

correct option A (59) cao **B1**

Answer: A) 59

Question 42

correct option D (9) cao **B1**

Answer: D) 9

Question 43

correct option B (42) cao **B1**

Answer: B) 42

Question 44

correct option A (103) cao **B1**

Answer: A) 103

Question 45

correct option E (12) cao **B1**

Answer: E) 12

Question 46

correct option B (12) cao **B1**

Answer: B) 12

Question 47

correct option C (109) cao **B1**

Answer: C) 109

Question 48

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

Answer: A) 6

Question 49

correct option D (2) cao **B1**

Answer: D) 2

Question 50

correct option D (4) cao **B1**

Answer: D) 4

Question 51

correct option E (17) cao **B1**

Answer: E) 17

Question 52

correct option D (12) cao **B1**

Answer: D) 12

Question 53

correct option C (90) cao **B1**

Answer: C) 90

Question 54

correct option B (53) cao **B1**

Answer: B) 53

Question 55

correct option E (4) cao **B1**

Answer: E) 4

Question 56

correct option C (8) cao **B1**

Answer: C) 8

Question 57

correct option D (60) cao **B1**

Answer: D) 60

Question 58

correct option A (131) cao **B1**

Answer: A) 131

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Question 59

correct option E (8) cao **B1**

Answer: E) 8

Question 60

correct option A (8) cao **B1**

Answer: A) 8

Question 61

correct option D (168) cao **B1**

Answer: D) 168

Question 62

correct option B (59) cao **B1**

Answer: B) 59

Question 63

correct option D (18) cao **B1**

Answer: D) 18

Question 64

correct option B (120) cao **B1**

Answer: B) 120

Question 65

correct option C (109) cao **B1**

Answer: C) 109

Question 66

correct option A (12) cao **B1**

Answer: A) 12

Question 67

correct option C (225) cao **B1**

Answer: C) 225

Question 68

correct option C (70) cao **B1**

Answer: C) 70

Question 69

correct option E (89) cao **B1**

Answer: E) 89

Question 70

correct option A (8) cao **B1**

Answer: A) 8

Question 71

correct option C (14) cao **B1**

Answer: C) 14

Question 72

correct option D (105) cao **B1**

Answer: D) 105

Question 73

correct option A (10) cao **B1**

Answer: A) 10

Question 74

correct option B (9) cao **B1**

Answer: B) 9

Question 75

correct option E (30) cao **B1**

Answer: E) 30

Question 76

correct option D (41) cao **B1**

Answer: D) 41

Question 77

correct option A (4) cao **B1**

Answer: A) 4

Question 78

correct option B (2) cao **B1**

Answer: B) 2

Question 79

correct option D (2^3 x 7^2) cao **B1**

Answer: D) 2^3 x 7^2

Question 80

correct option E (109) cao **B1**

Answer: E) 109

Question 81

correct option B (12) cao **B1**

Answer: B) 12

Question 82

correct option C (4) cao **B1**

Answer: C) 4

Question 83

correct option A (84) cao **B1**

Answer: A) 84

Question 84

correct option C (2^3 x 5) cao **B1**

Answer: C) 2^3 x 5

Question 85

correct option B (8) cao **B1**

Answer: B) 8

Question 86

correct option E (14) cao **B1**

Answer: E) 14

Question 87

correct option C (105) cao **B1**

Answer: C) 105

Question 88

correct option D (131) cao **B1**

Answer: D) 131

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Question 89

correct option A (4) cao **B1**

Answer: A) 4

Question 90

correct option B (8) cao **B1**

Answer: B) 8

Question 91

correct option C (2^2 x 3^2) cao **B1**

Answer: C) 2^2 x 3^2

Question 92

correct option B (61) cao **B1**

Answer: B) 61

Question 93

correct option D (4) cao **B1**

Answer: D) 4

Question 94

correct option A (24) cao **B1**

Answer: A) 24

Question 95

correct option D (90) cao **B1**

Answer: D) 90

Question 96

correct option C (3^3 x 5^2) cao **B1**

Answer: C) 3^3 x 5^2

Question 97

correct option A (8) cao **B1**

Answer: A) 8

Question 98

correct option B (7) cao **B1**

Answer: B) 7

Question 99

correct option B (20) cao **B1**

Answer: B) 20

Question 100

correct option A (17) cao **B1**

Answer: A) 17

Question 101

correct option E (8) cao **B1**

Answer: E) 8

Question 102

correct option B (120) cao **B1**

Answer: B) 120

Question 103

correct option C (3^2 x 7^2) cao **B1**

Answer: C) 3^2 x 7^2

Question 104

correct option A (43) cao **B1**

Answer: A) 43

Question 105

correct option E (8) cao **B1**

Answer: E) 8

Question 106

correct option D (12) cao **B1**

Answer: D) 12

Question 107

correct option E (90) cao **B1**

Answer: E) 90

Question 108

correct option D (2^3 x 3^3) cao **B1**

Answer: D) 2^3 x 3^3

Question 109

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

Answer: A) 6

Question 110

correct option C (9) cao **B1**

Answer: C) 9

Question 111

correct option D (60) cao **B1**

Answer: D) 60

Question 112

correct option A (59) cao **B1**

Answer: A) 59

Question 113

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

Answer: C) 6

Question 114

correct option E (16) cao **B1**

Answer: E) 16

Question 115

correct option C (2^2 x 5) cao **B1**

Answer: C) 2^2 x 5

Question 116

correct option E (103) cao **B1**

Answer: E) 103

Question 117

correct option A (10) cao **B1**

Answer: A) 10

Question 118

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

Answer: B) 6

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Question 119

correct option B (36) cao **B1**

Answer: B) 36

Question 120

correct option E (2×5^2) cao **B1**

Answer: E) 2×5^2

Question 121

correct option C (11) cao **B1**

Answer: C) 11

Question 122

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

Answer: A) 6

Question 123

correct option B (12) cao **B1**

Answer: B) 12

Question 124

correct option E (2×5^3) cao **B1**

Answer: E) 2×5^3

Question 125

correct option A (67) cao **B1**

Answer: A) 67

Question 126

correct option D (4) cao **B1**

Answer: D) 4

Question 127

correct option C (14) cao **B1**

Answer: C) 14

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