1.10 Factors, Multiples, Primes and Squares: 30-minute Pack

Total Marks

Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 What is the highest common factor of 35 and 14?

Answer: ___

(2)

---

2 What is 2 squared?

Answer: ___

(1)

---

3 What is 6 cubed?

Answer: ___

(1)

---

4 What is the smallest number that is a multiple of both 12 and 3?

Answer: ___

(2)

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5 The sum of 3 consecutive odd numbers is 171.

What is the smallest of the 3 numbers?

Answer: ___

(2)

---

6 Write all the factors of 38.

Answer: ___

(1)

---

7 Write all the multiples of 5 from 115 to 131.

Answer: ___

(2)

---

8 Which of these numbers is a multiple of 6?

828, 527, 603, 727, 591

Answer: ___

(2)

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9 The sum of 3 consecutive odd numbers is 165.

What is the smallest of the 3 numbers?

Answer: ___

(2)

---

10 Write all the prime numbers between 72 and 94.

Answer: ___

(2)

---

11 Is 28 a prime number? Write Yes or No.

Answer: ___

(2)

---

12 Sara writes down every multiple of 8 up to and including 80. How many numbers does she write? Show your working.

(3)

---

13 Is 29 a prime number? Explain your answer in one sentence.

(1)

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14 Which of these numbers is a square number?

143, 100, 95, 70, 92

Answer: ___

(1)

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15 Write down two consecutive square numbers greater than 9. Give both numbers.

(1)

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Mark scheme · 1.10 Factors, Multiples, Primes and Squares: 30-minute Pack

Question 1

lists the factors of each number — **M1**

7 cao — **A1**

Answer: **7**

Question 2

4 cao — **B1**

Answer: **4**

Question 3

216 cao — **B1**

Answer: **216**

Question 4

lists multiples of 12 and 3 — **M1**

12 cao — **A1**

Answer: **12**

Question 5

uses the mean or tests numbers — **M1**

55 cao — **A1**

Answer: **55**

Question 6

1, 2, 19, 38 cao — **B1**

Answer: **1, 2, 19, 38**

Question 7

lists multiples of the number — **M1**

115, 120, 125, 130 cao — **A1**

Answer: **115, 120, 125, 130**

Question 8

uses a divisibility rule or division — **M1**

828 cao — **A1**

Answer: **828**

Question 9

uses the mean or tests numbers — **M1**

53 cao — **A1**

Answer: **53**

Question 10

checks factors of numbers in the range — **M1**

73, 79, 83, 89 cao — **A1**

Answer: **73, 79, 83, 89**

Question 11

gives a factor if not prime — **M1**

No cao — **A1**

Answer: **No**

Question 12

Method shown to count multiples, e.g. 80 ÷ 8 or listing multiples — **M1**

Correct count 10 cao — **B1**

Supporting statement or listing of multiples 8, 16, ..., 80 oe — **B1**

Answer: **10**

Question 13

Correct explanation that 29 has no divisors other than 1 and itself, or states it is prime cao — **B1**

Answer: **Yes. 29 is prime because it has no factors other than 1 and 29.**

Question 14

100 cao — **B1**

Answer: **100**

Question 15

Any two consecutive squares greater than 9, for example 16 and 25 cao — **B1**

Answer: **16, 25**

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