



Find the Rule - set samples - paper 1

The numbers are alike in some ways.

Select ONE of the options to say one way in which they are alike.

1. **18 108 153 180**

- A) Their tens digit is greater than their units digit.
- B) They are all multiples of 9.
- C) They are all three-digit numbers.
- D) They are all even numbers.
- E) They are all multiples of 4.

ans _____

2. **3 20 120**

- A) They are all factors of 60.
- B) They are all factors of 120.
- C) They are all multiples of 12.
- D) They are all multiples of 5.
- E) They are all 1 less than a square number.

ans _____

3. **16 66 121**

- A) They are all 1 more than a multiple of 5.
- B) They are all multiples of 6.
- C) They are all even numbers.
- D) They are all palindromic numbers.
- E) They are all square numbers.

ans _____



Find the Rule - set samples - Answers

1. A) 18 and 108 are not numbers whose tens digit is greater than their units digit
C) 18 is a two-digit number, not a three-digit number
D) 153 is an odd number, not an even number
E) 18 and 153 are not multiples of 4

Correct Answer **B**: Each is a multiple of 9:
 $18 / 9 = 2$, $108 / 9 = 12$, $153 / 9 = 17$, $180 / 9 = 20$.

2. A) 120 is not a factor of 60
C) 3 and 20 are not multiples of 12
D) 3 is not a multiple of 5
E) 20 is not 1 less than a square number

Correct Answer **B**: Each is a factor of 120:
 $120 / 3 = 40$, $120 / 20 = 6$, $120 / 120 = 1$.

3. B) 16 and 121 are not multiples of 6
C) 121 is an odd number, not an even number
D) 16 is not a palindromic number
E) 66 is not a square number

Correct Answer **A**: Subtracting 1 from each yields 15, 65 and 120, which are all multiples of 5.