



# Numerical Deduction - set samples - paper 1

Use the three clues to work out the number.

1. Its digits add up to 8.  
The difference between its digits is 6.  
It is less than 50.  
What number is it?  
A 19    B 47    C 71    D 17    E 53
2. It is an even number.  
The difference between its digits is 1.  
It is a multiple of 5.  
What number is it?  
A 62    B 10    C 65    D 76    E 44
3. It is a multiple of 3.  
It is an odd number.  
Its reversal is 18 less than the original.  
What number is it?  
A 99    B 35    C 78    D 75    E 12



# Numerical Deduction - set samples - Answers

1. Clues:  
1: Its digits add up to 8.  
2: The difference between its digits is 6.  
3: It is less than 50.

Checking options:

- A) 19: Fails clue 1 (digit sum is 10, not 8)  
B) 47: Fails clue 1 (digit sum is 11, not 8)  
C) 71: Fails clue 3 (71 is not 50)

D) 17: Passes all clues:

digit sum is 8

$$7 - 1 = 6$$

17 50

E) 53: Fails clue 2 ( $5 - 3 = 2$ , not 6)

Answer: D

2. Clues:  
1: It is an even number.  
2: The difference between its digits is 1.  
3: It is a multiple of 5.

Checking options:

A) 62: Fails clue 2 ( $6 - 2 = 4$ , not 1)

B) 10: Passes all clues:

10 is even

$$1 - 0 = 1$$

$$10 = 5 \times 2$$

C) 65: Fails clue 1 (65 is odd, not even)

D) 76: Fails clue 3 ( $76 \div 5 = 15$  remainder 1)

E) 44: Fails clue 2 ( $4 - 4 = 0$ , not 1)

Answer: B

3. Clues:  
1: It is a multiple of 3.  
2: It is an odd number.  
3: Its reversal is 18 less than the original.

Checking options:

A) 99: Fails clue 3 (reversed=99,  $99-99=0$ , not +18)

B) 35: Fails clue 1 ( $35 \div 3 = 11$  remainder 2)

C) 78: Fails clue 2 (78 is even, not odd)

D) 75: Passes all clues:

$$75 = 3 \times 25$$

75 is odd

$$\text{reversed}=57, 75-57=18$$

E) 12: Fails clue 2 (12 is even, not odd)

Answer: D