December 10th

How many numbers with two digits, which when reversed, produce a number which is 75% greater?

How many produce a number which is 25% greater?

Corbett maths

75% greater:

If the two digit number is “ab”, then we need

1.75(10a + b) = 10b + a (1.75 = 7/4)

70a + 7b = 40b + 4a

2a = b

Therefore possible 2 digit numbers are

12, 24, 36, 48

25% greater:

1.25(10a + b) = 10b + a (1.25 = 5/4)

50a + 5b = 40b + 4a

46a = 35b

Therefore there are no possible values (since a and b are both single digit integers)