

Diagnostic Quiz

Number: Number and Place
Value
Post-topic Test 2

Year 2

Year 2 Number and Place Value 2

Name.....

Date..... Class.....

School..... Score.....



Please tick your answer to each question, like the example below. You can use any space left below a question for your working out, if you need it.

Example question

1. What fraction of the shape is shaded blue?



Select the equivalent fraction below.

- a) ☐ $\frac{4}{4}$ b) ☐ $\frac{2}{8}$ c) ☒ $\frac{1}{2}$ d) ☐ $\frac{8}{8}$

1. Which symbol can be used to compare these numbers?

4 tens and 7 ones _____ 47

a) ☐ <

b) ☐ >

c) ☐ =

d) ☐ +

2. Which number comes next?

30, 27, 24, 21, 18, _____

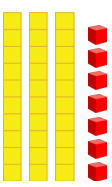
a) ☐ 19

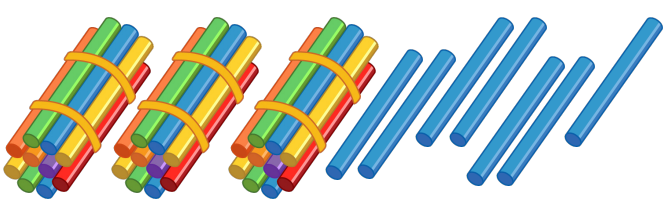
b) ☐ 15

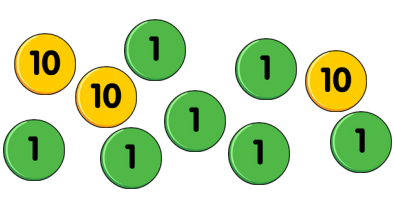
c) ☐ 17

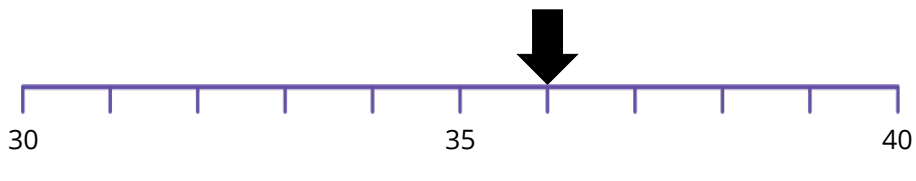
d) ☐ 12

3. Which of these does NOT represent 37?

a) ☐ 

b) ☐ 

c) ☐ 

d) ☐ 

4. Which number will be next in this sequence?

50, 45, 40, 35,

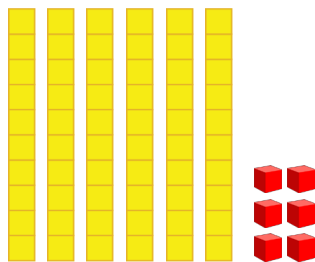
a) ☐ 34

b) ☐ 30

c) ☐ 27

d) ☐ 40

5. What is one more than the number shown?



a) ☐ fifty-six

b) ☐ sixty-six

c) ☐ sixty-seven

d) ☐ sixty-five

6. Which number would I say next if I count forwards in twos from 10?

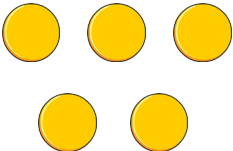

a) ☐ 12

b) ☐ 8

c) ☐ 14

d) ☐ 11

7. Which number is represented by the place value grid?

Tens	Ones
	

a) ☐ 501

b) ☐ 51

c) ☐ 6

d) ☐ 15

8. Which symbol can be used to compare these numbers?

$$0 \text{ — } 1$$

a) ☐ $>$

b) ☐ $<$

c) ☐ $=$

d) ☐ $+$

9. $40 + 8 =$

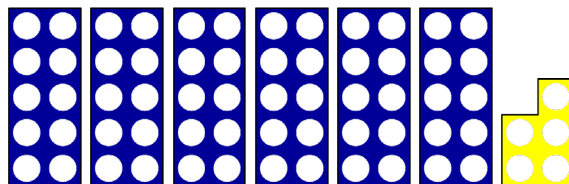
a) ☐ 408

b) ☐ 12

c) ☐ 48

d) ☐ 84

10. Which number has been represented?



a) ☐ 70

b) ☐ 60

c) ☐ 55

d) ☐ 65

11. I start counting forward in tens from 20. Which number will I say next?

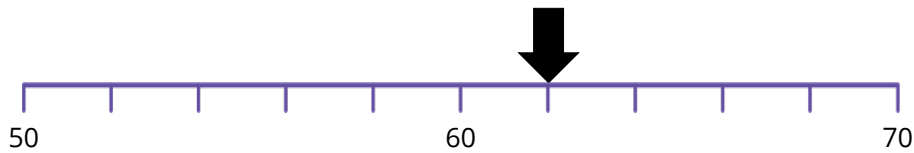
a) ☐ 30

b) ☐ 40

c) ☐ 10

d) ☐ 25

12. Which number is the arrow pointing to?



- a) ☐ 61
 - b) ☐ 62
 - c) ☐ 56
 - d) ☐ 52
-

13. The cards show a number in digits and words.

The digits and words on **one** card do not match.

Which card is wrong?

A 33 thirty-three	B 80 eighty	C 13 thirteen	D 16 sixty
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- a) ☐ 33 and thirty-three
 - b) ☐ 80 and eighty
 - c) ☐ 13 and thirteen
 - d) ☐ 16 and sixty
-

14. Which number has four tens and three ones?

a) ☐ 34

b) ☐ 403

c) ☐ 43

d) ☐ 7

15. Which calculation has the same answer as this calculation?

$$50 + 9$$

a) ☐ $40 + 19$

b) ☐ $90 + 5$

c) ☐ $59 + 9$

d) ☐ $20 + 29$

Year 2 Number and Place Value 2

Answer Sheet

1. Which symbol can be used to compare these numbers? 4 tens and 7 ones ? 47

Checks understanding of comparing numbers from 0 to 100 using $<$, $>$ and $=$.

- a) $<$: May have only seen 4 and 7 in the first part and assumed these are both ones (totalling 11), therefore assuming 47 is larger.
- b) $>$: May have a misunderstanding around the $=$ symbol (thinking $=$ means the answer). Has assumed that only $<$ and $>$ compare numbers.
- c) $=$: Correct answer.
- d) $+$: Has not understood that the addition symbol is not used to compare numbers.

2. Which number comes next? 30, 27, 24, 21, 18, ?

Checks understanding of counting backwards in threes.

- a) 19: Has not understood that the sequence is decreasing and has added one.
- b) 15: Correct answer.
- c) 17: Has understood the sequence is decreasing but has not understood it is decreasing in threes.
- d) 12: Has understood that the sequence is decreasing in threes but has miscalculated the missing number.

3. Which of these does NOT represent 37?

Checks understanding of how to represent numbers.

For all incorrect answers: Has either not understood the question and has identified a representation showing 37 or has not read the representation accurately.

- a) Base 10: May have miscounted the ones as they are in a line making them harder to count.
- b) sticks: May have miscounted the bundles of sticks.
- c) counters: May have miscounted the counters as they are not in a discernible order or groups.
- d) number line: Correct answer.

4. Which number will be next in this sequence? 50, 45, 40, 35,

Checks understanding of counting backwards in fives.

- a) 34: Has not understood that the sequence is decreasing in fives and has instead counted back one.
- b) 30: Correct answer.
- c) 27: Has not understood that the ones in the pattern are all 0 or 5.
- d) 40: Has not understood the sequence is decreasing in fives, not increasing in fives.

5. What is one more than the number shown?

Checks understanding of reading and writing numbers to 100 in words and finding one more than a number.

- a) fifty-six: Has found ten less than 66, they may not understand what one more means.
- b) sixty-six: Has identified the number represented. May not understand what the

question is asking or may not understand the vocabulary of one more.

- c) sixty-seven: Correct answer.
- d) sixty-five: Has found one less, they may not understand the language of one more and one less.

6. Which number would I say next if I count forwards in twos from 10?

Checks understanding of counting forwards in twos.

- a) 12: Correct answer.
- b) 8: Has counted back two from 10, not forwards.
- c) 14: Has miscounted when counting on in twos.
- d) 11: Has counted on one, not two. May not have understood what the question was asking.

7. Which number is represented by the place value grid?

Checks understanding of reading and writing numbers to at least 100 in digits.

- a) 501: Has understood that the 5 counters in the tens column represent 50. They have not understood how to combine the tens and ones.
- b) 51: Correct answer.
- c) 6: Has counted the total number of counters in the place value grid, ignoring their value.
- d) 15: Has correctly identified that the digits are five and one but has swapped these digits around.

8. Which symbol can be used to compare these numbers? 0 ? 1

Checks understanding of comparing numbers from 0 to 100 using <, > and =.

For all incorrect answers: They may not understand the concept of 0 as a place holder.

- a) > : Understands one number is larger but may not understand the difference between < and >.
- b) < : Correct answer.
- c) = : May not know how to compare 0 to another number and has assumed it is the same as 1.
- d) + : Has not understood that this symbol is not used to compare numbers.

9. $40 + 8 =$

Checks understanding of place value of each digit in a two-digit number.

- a) 408: Has not understood zero as a place holder, how to combine partitioned numbers or how to count on 8 from 40.
- b) 12: Has added the digits together ($4 + 0 + 8$) showing they don't understand the value of digits in a number.
- c) 48: Correct answer.
- d) 84: Understands that the zero is not necessary in their final number but has swapped the digits in their final answer.

10. Which number has been represented?

Checks understanding of reading and writing numbers to at least 100 in digits.

- a) 70: Has counted each number shape as if they were 10.
- b) 60: Has only counted the tens number shapes.
- c) 55: Has miscounted the total tens number

shapes but has counted the ones correctly.

d) 65: Correct answer.

11. I start counting forward in tens from 20.

Which number will I say next?

Checks understanding of counting forwards in tens.

- a) 30: Correct answer.
 - b) 40: Has counted twenty on from 20. They have not understood what the question is asking.
 - c) 10: Has counted back 10 instead of forwards.
 - d) 25: Has counted forwards 5 instead of 10.
-

12. Which number is the arrow pointing to?

Checks understanding of estimating numbers on a number line.

- a) 61: Has not understood that the number line scale increases in twos, not ones.
 - b) 62: Correct answer.
 - c) 56: Has not understood the number line. They have assumed the scale increases in ones, despite the numbers given.
 - d) 52: Has identified that the scale increases in twos but has not identified the correct tens to use.
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13. The cards show a number in digits and words. The digits and words on one card do not match. Which card is wrong?

Checks understanding of reading and writing numbers to 100 in words.

For all incorrect answers: May have not read the question correctly and picked a card that is

correct. May also not have a secure understanding of how to write numbers in words.

- a) 33 and thirty-three: May have found the different ways of saying the digit '3' depending on the place value column it is in confusing.
 - b) 80 and eighty: May not have a secure understanding of the value of 0. May think the card should say 'eight' not 'eighty'.
 - c) 13 and thirteen: May think that the written number should include 'three' (for example fourteen includes four).
 - d) 16 and sixty: Correct answer.
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14. Which number has four tens and three ones?

Checks understanding of place value of each digit in a two-digit number.

- a) 34: Has swapped the digits in the number given.
 - b) 403: Does not have a good understanding of zero as a place holder.
 - c) 43: Correct answer.
 - d) 7: Has counted on three from four. Has not understood what the question is asking.
-

15. Which calculation has the same answer as this calculation? $50 + 9$

Checks understanding of place value and number facts to solve problems and counting forwards in tens.

- a) $40 + 19$: Correct answer.
- b) $90 + 5$: Has rearranged the digits in the given calculation. May not understand that using the same digits does not mean the answers will be the same.
- c) $59 + 9$: Has not understood the question. They

have used the answer to the given calculation and added 9, they may believe they need to continue the pattern.

- d) $20 + 29$: May not have calculated the answers correctly.