Level 2 Whole Number Questions

Level 2 Adult Numeracy questions: Whole numbers (N1) – four operations (no negative numbers), problem solving, substitution.
Allow about 25 minutes.
You may NOT use a calculator. Bilingual dictionaries may be used.

N1/L2.1 Read, write, order and compare positive and negative numbers of any size in a practical context
N1/L2.2 Carry out calculations with numbers of any size using efficient methods. (c) know and use strategies to check answers, e.g. approximate calculations, estimation
N1/L2.4 Evaluate expressions and make substitutions in given formulae in words and symbols to produce results (a) understand that words and symbols in expressions and formulae represent variable quantities (numbers) (b) understand that the contents of brackets must be worked out first

1. Chris buys 4 CDs at £13.99 each. He gives the cashier £60.
Which method would give Chris the closest estimate to let him check his change?

A 60 - 13 x 4
B 60 - 4 - 13
C 60 - 4 + 14
D 60 - 4 x 14

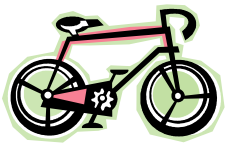
2. Betty plans to hire a minibus for a 4-day scout camp. She estimates that she will do a total of 125 miles. The hire company charges £30 per day plus 15p per mile. How much will the minibus cost for the trip?

A £121.87
B £138.75
C £180.00
D £245.00

3. A pop concert has an audience of 8 496 people. Two thirds of the people at the concert pay a £15 entrance fee while the remainder pay a reduced rate of £7. What is the income from the concert to the nearest thousand pounds?

A £80 000
B £82 000
C £104 800
D £105 000

4. Greg went on a cycle ride. He cycled 30 miles in 2½ hours, then returned home more slowly. His return journey took him 2 hours 45 minutes.
He finds his average speed for the first 30 miles using this formula



$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

What was Greg's average speed for the 30 miles?
A 5 miles per hour
B 12 miles per hour
C 15 miles per hour
D 33 miles per hour

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A £121.87
B £138.75
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Questions 6 to 8 are about a camping holiday.
Some friends are planning a camping holiday in May.

6. The table shows information on the prices of some of the campsites available.

Campsite Information		
Site	**Price per night**	**Discounts**
Happy Camper	£10 per tent	50% off third night
Rovers' Rest	£4 per tent plus £2 per person	–
Vibram Farm	£15 per tent	25% off all nights in May
Wood Nook	£2 per tent plus £4 per person	–

There are 4 people in the group and they are taking 2 tents for 3 nights in May. They calculate that Rovers' Rest is the cheapest for them and Vibram Farm would be the most expensive.
How much would they save by going to Rovers' Rest rather than Vibram Farm?

A £6.50
B £8.50
C £19.50
D £25.50

7. Their car uses 1 litre of petrol to travel 14.8 kilometres. The campsite is 88 kilometres away from their home town. They estimate how much fuel they will need for the trip there and back.
Which of these 4 attempts gives the closest estimate of the fuel required?

A 90 ÷ 15 = 6 litres
B 90 ÷ 10 = 9 litres
C 180 ÷ 15 = 12 litres
D 180 ÷ 10 = 18 litres

8. One of the items on their list of supplies is 6 yoghurts. The supermarket has several special offers. Which would work out cheapest?

A Original price 26p: buy one, get a second half-price
B Original price 26p: buy two, get the third free
C Original price 27p: one third off
D Original price 28p: 25% off

9. Alison has a picture that she wants framing. The cost is £5.99 plus an amount that depends on the length of framing needed. The man in the shop says it will cost "£5.99, plus 1.9 times 8.99, that's £25.07 altogether".
Which of the following calculations could she use to check.

A (5 + 2) x 8 =
B (6 + 2) x 9 =
C 5 + (2 x 8) =
D 6 + (2 x 9) =

10. Jenny has a part-time job in a restaurant. She gets paid £3.80 per hour. On Sundays she is paid one and a half times as much per hour. On Bank Holidays she is paid twice as much per hour.
She works 5 hours on Saturday, 3 hours on Sunday and 4 hours on Bank Holiday Monday. How much does she earn altogether?

A £46.60
B £66.50
C £68.40
D £70.30

11. The table shows the current and new Council Tax rates for West Forest District Council.

West Forest District Council		
Band	**Current Council Tax**	**New Council Tax**
A	£520	£546
B	£619	£649
C	£707	£742
D	£796	£836
E	£973	£1021
F	£1150	£1207
G	£1327	£1393
H	£1580	£1659

There are 2500 houses in Band H. How much extra money will the new tax raise from these houses, compared with the current tax?

A £194 500
B £195 500
C £196 500
D £197 500

Questions 12 and 13 are about a window cleaner.

The window cleaner needs some leaflets to advertise his business.
The printer gives him the following list of costs:

	Cost
Basic setting-up charge	£10
First 500 leaflets	£5 per 100 leaflets
Extra leaflets above 500	£2.50 per 100 leaflets

12. Which formula shows the cost of printing 1 000 leaflets?

A cost in £s = 10 + (2.5 x 10)
B cost in £s = 10 + (2.5 x 5) + (5 x 5)
C cost in £s = 10 + (5 x 10)
D cost in £s = 10 + (7.5 x 10)

13. The window cleaner can afford to spend £30 on printing.
How many leaflets can he get for this?

A 400
B 600
C 700
D 800

14 The cost of printing tickets for a play is £4.85 for each 100 tickets plus a fixed charge of £21.50. Which is the best estimate of the cost of printing 500 tickets?

A 5 + 5 + 20
B 20 + (5 x 5)
C (20 + 5) x 5
D 5 x 5 x 20

Answers

1	2	3	4	5	6	7	
8	9	10	11	12	13	14	Total

Tutor Comments

Answer sheet and teaching notes.

Level 2: Whole numbers (four operations, problem solving).

1	–	**D** 60 - 4 x 14
2	–	**B** £138.75
3	–	**D** £105 000
4	–	**B** 12 miles per hour
5	–	**B** £138.75
6	–	**C** £19.50
7	–	**C** 180 ÷ 15 = 12 litres
8	–	**B** Original price 26p: buy two, get the third free
9	–	**D** 6 + (2 x 9) =
10	–	**B** £66.50
11	–	**D** £197 500
12	–	**B** cost in pounds = 10 + (2.5 x 5) + (5 x 5)
13	–	**A** 400
14	–	**B** 20 + (5 x 5)

Allow about 25 minutes