End of Level 3 Revision Non Calculator

1. A painter calculates that the amounts of paint he will need to cover the various areas of a factory are :

    6.3 litres, 7.8 litres, 9.5 litres and 12.9 litres.

    (a)   Round the amounts to the nearest whole litre.

    (b)   Use your answers to estimate the total volume of paint required.

        The paint comes in 5 litre cans. How many cans are needed?

2. A milk carton holds 2.272 litres of milk.

    Martin calculates that he can fill 22 of the milk cartons from a 50 litre tank.

    (a)   Check that he is correct.

    (b)   What volume of milk from the tank will be left?

3. These are the lap times of Bill's 4 by 400m run:

    60.4 s   62.5 s   58.3 s   56.2 s

    Calculate his mean lap time.

4. Which of these supermarket offers is the best value? Show your method.

    (a)   Cat food: (i)   3 tins for £1.59   (ii)   5 tins for £2.40

    (b)   Orange juice   (i)   10 litres £6.30   (ii)   6 litres for £3.54

    (c)   Free range turkey   (i)   7kg for £12.32   (ii)   10kg for £16.80
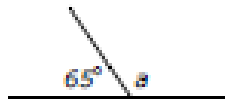
5. Try the following questions:

    a) 5·1 + 3·8   b) 3·6 + 5·7   c) 8·9 – 5·2   d)   15·5 – 10·6

    e) 10·39 – 5·21   f) 6·89 + 5·1   g) 7·67 – 1·89   h) 64·53 + 49·08

    i) 47·5 – 17·56   j) 92·4 + 33·307   k) 13·425 – 11·313

6.

    a) 2 × 0·3   b) 1·4 × 3   c) 7·8 ÷ 2   d)   29·6 ÷ 4

    e) 6·8 × 4   f) 78·5 ÷ 5   g) 19·8 ÷ 6   h)   17·9 × 9

    i) 108·9 ÷ 9   j) 234·7 × 7   k) 182·4 ÷ 8   l) 638·7 × 6

7.   (a)   12.47 × 30   (b)   34.9 ÷ 0.5   (c)   0.0026 × 400

      (d)   4.5 ÷ 0.15   (e)   0.9 × 4.7   (f)   1.0416 ÷ 0.03

8. Use angle facts to calculate the missing angle.
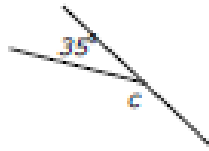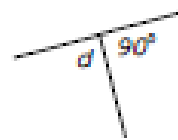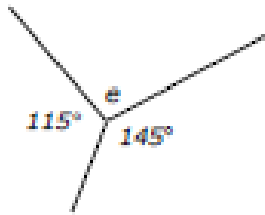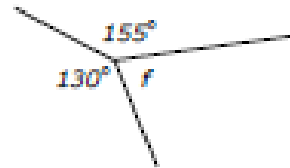
(1)

65° a

(2)

120° b

(3)

35° c

(4)

d 90°

(5)

e
115° 145°

(6)

155°
130° f

(7)

248°
g

(8)

38° h
i

(9)

j
95° k
l

(10)

148°
m n
p

(11)

105° q
35°

(12)

r
44° 28°

(13)

s
t
109°

(14)

w u
v
137°
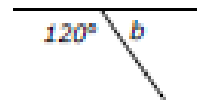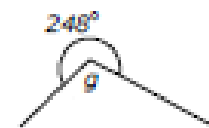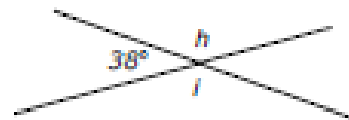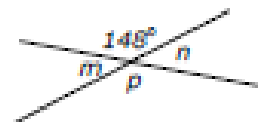
9. Calculate the following:

(a) $14 - 3 \times 2$ (b) $6 + 30 \div 6 + 4$ (c) $8 - 100 \div 5 -10$

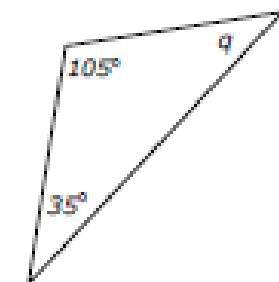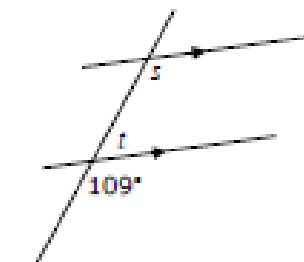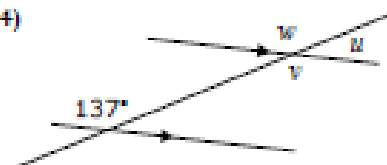(d) $(14 -3) \times 2$ (e) $6 + 30 \div (6 + 4)$ (d) $48 \div 12 \times 2 - 3 + 5$
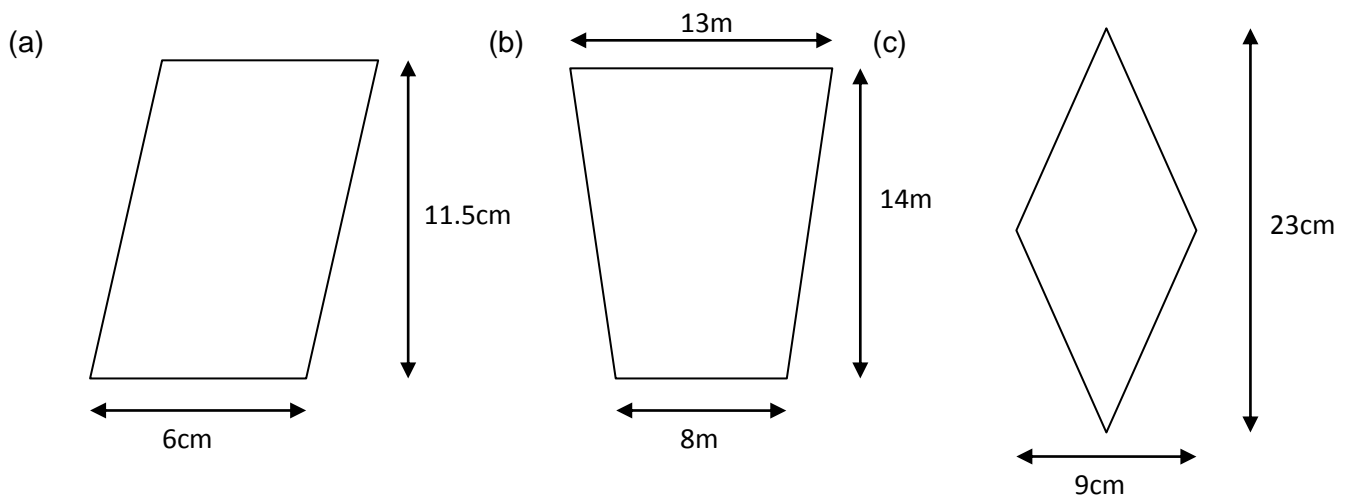
10. Calculate the following:

(a) 35% of £80   (b) 71% of £19   (c) 2/7 of 91kg

(d) 14/15 of 165m   (e) 3% of £16500   (f) 0.3 of 26km

11. Solve the following:

(a) $5x - 2 = 18$ (b) $4t + 9 = 21$ (c) $7x - 3 = 4x + 15$

(d) $7x + 11 = 5x + 20$ (e) $6x - 5 \leq 2x - 17$ (f) $9g -16 \geq 2g - 2$

12. A square has a perimeter of 44m; find the area of the square.

13. Find the area of each of the following:

(a)   (b)   (c)

6cm   8m   9cm

11.5cm   13m / 14m   23cm

14. To buy a new TV it costs £1300 cash. The shop also offers a hire purchase agreement to buy the TV. The hire purchase terms are a 15% of the cash price deposit and 24 instalments of £64.99.

Find the difference in price between the cash price and hire purchase price.

15. A map has a scale of 1 : 50000. Find:

(a) The real life distance in km if two towns are 24cm apart on the map.

(b) The distance on the map if two towns are 5.5km in real life.

16. Frank is facing North-East, he turns 90° clockwise, what is his new 3 figure bearing?

17. Calculate for a =4, b = -3 and c = 5

(a) $2a + c$ (b) $5ab$ (c) $ac - b$ (d) $a^2 - b^2$ (e) $15ab \div c$

18. Find the product of the lowest common multiple (non zero) and the highest common factor of 12, 24 and 30.