1.3 Problem Solving Skills Pack: 30-minute Pack

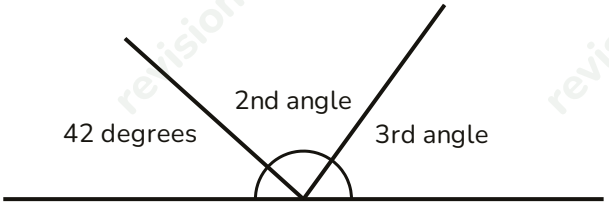
NATIONAL CURRICULUM KS2 National Curriculum Mathematics - Problem Solving Skills Framework · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Three angles lie on a straight line. The first angle is 42 degrees. The second angle is twice the size of the first angle. Work out the size of the third angle.



(4)

2 A large water dispenser holds 15 litres of water when full. On Monday, 62 cups of water were poured from a full dispenser, each cup holding 150 ml. Work out how many millilitres of water were left in the dispenser after the 62 cups had been poured.

(4)

© Revision Library | revisionlibrary.co.uk

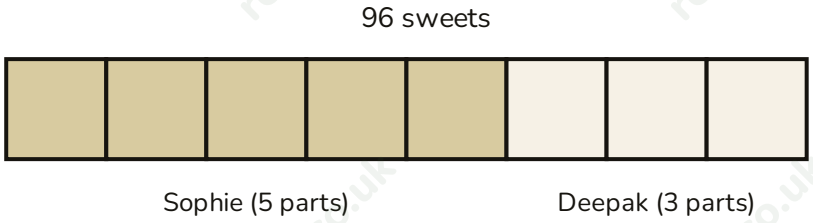
3 Four athletes' long jump distances were: Fatima 3.42 m, Ravi 3.4 m, Nia 3.09 m, Callum 3.45 m.

(a) Which athlete jumped the furthest? **(1)**

(b) Work out the difference in distance between the furthest jump and the shortest jump. **(2)**

---

4 Sophie and Deepak share a bag of 96 sweets so that for every 5 sweets Sophie gets, Deepak gets 3. Work out how many sweets Deepak receives.



(4)

© Revision Library | revisionlibrary.co.uk

5 A class makes 60 cakes for a school bake sale.

(a) A class makes 60 cakes for a school bake sale. 3/4 of the cakes are chocolate cakes and the rest are lemon cakes. Work out how many lemon cakes there are. **(2)**

.....

(b) Each chocolate cake sells for £1.20 and each lemon cake sells for £1.50. If all the cakes are sold, work out the total amount of money raised. **(3)**

.....

6 Use each of the digits 3, 6, 2, 5 once to make the largest possible 4-digit number.

Answer: ___

(1)

7 A lesson starts at 18:55 and ends at 21:24.

How many minutes does it take?

Answer: ___ minutes

(2)

© Revision Library | revisionlibrary.co.uk

8 The sum of 5 consecutive even numbers is 180.

What is the smallest of the 5 numbers?

Answer: ___

(2)

---

9 A shop sells 4 stickers for 75p and 8 stickers for 97p.

Which pack is better value for money? Write the number of stickers in the pack.

Answer: ___

(2)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 1.3 Problem Solving Skills Pack: 30-minute Pack

Question 1

second angle = 2 x 42 = 84 oe	M1
42 + 84 = 126 (sum of first two angles) oe ft	M1
180 - 126 oe ft (angles on a straight line total 180 degrees)	M1
54 degrees cao	A1

Answer: **54 degrees**

Question 2

converts 15 litres to 15000 ml oe	M1
62 x 150 = 9300 (ml poured) oe	M1
15000 - 9300 oe ft	M1
5700 ml cao	A1

Answer: **5700 ml**

Question 3

(a) Callum cao, with correct reasoning that 3.45 m is the largest distance	B1

(a) Answer: **Callum**

(b) identifies the shortest jump as Nia's 3.09 m, ft from part (a)	M1
(b) 0.36 m cao	A1

(b) Answer: **0.36 m**

Question 4

total parts = 5 + 3 = 8 oe	M1
96 / 8 = 12 (value of one part) oe	M1
3 x 12 oe ft	M1
36 cao	A1

Answer: **36 sweets**

Question 5

(a) finds 1/4 of 60 = 15 (or finds 3/4 of 60 = 45 then 60 - 45) oe	M1
(a) 15 cao	A1

(a) Answer: **15 lemon cakes**

(b) 45 x 1.20 = 54, ft from part (a)	M1
(b) 15 x 1.50 = 22.50, ft from part (a)	M1
(b) £76.50 cao ft	A1

(b) Answer: **£76.50**

Question 6

6,532 cao	B1

Answer: **6,532**

Question 7

counts on to the next hour or minutes calculation	M1
149 minutes cao	A1

Answer: **149 minutes**

Question 8

uses the mean or tests numbers	M1
32 cao	A1

Answer: **32**

Question 9

finds the cost of one in each pack	M1
8 cao	A1

Answer: **8**

© Revision Library | revisionlibrary.co.uk