1.3 Problem Solving Skills Pack: Test Pack

NATIONAL CURRICULUM KS2 National Curriculum Mathematics - Problem Solving Skills Framework · Calculators not allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Here are five number cards showing the four-digit numbers 4082, 4820, 4208, 4028 and 4802. Write the five numbers in order, starting with the smallest.

(2)

2 A baker arranges cakes on trays. Each tray holds 8 cakes. The baker fills 7 trays completely. Work out how many cakes are on the trays altogether.

(2)

© Revision Library | revisionlibrary.co.uk

3 A recipe for 12 flapjacks uses 150 g of oats, 100 g of butter and 80 g of sugar.

(a) A recipe for 12 flapjacks uses 150 g of oats, 100 g of butter and 80 g of sugar. Nadia wants to make 30 flapjacks using the same recipe in the same proportions. Work out how much butter she needs. **(2)**

.....

(b) Work out how much oats she needs for 30 flapjacks. **(2)**

.....

(c) Butter costs £4 per 500 g bag and oats cost £2 per 500 g bag; both are sold only in whole bags. Work out the total cost of the butter and oats Nadia must buy for the 30 flapjacks. **(3)**

.....

---

4 A coat costs £84. In a sale, the price is reduced by 30%. Work out the total cost of buying 2 coats at the sale price.

(4)

© Revision Library | revisionlibrary.co.uk

5 At 6 am, the temperature in Aberdeen was -4°C.

(a) At 6 am, the temperature in Aberdeen was -4°C. By 2 pm, the temperature had risen by 11°C. Work out the temperature at 2 pm. **(2)**

.....

(b) At 2 pm, the temperature in Norwich was 15°C. Work out the difference between the temperature in Norwich and the temperature in Aberdeen at 2 pm. **(1)**

.....

---

6 2/6 of the badges in a jar is 20. How many badges are in the jar?

Answer: ___

(2)

---

7 The sum of 4 consecutive odd numbers is 56.

What is the smallest of the 4 numbers?

Answer: ___

(2)

---

8 Ethan is 3 times as old as Femi. Together their ages add up to 44.

How old is Femi?

Answer: ___

(2)

© Revision Library | revisionlibrary.co.uk

9 A film starts at 07:06 and ends at 07:35.

How many minutes does it take?

Answer: ___ minutes

(2)

---

10 1/2 of the crayons in a jar is 8. How many crayons are in the jar?

Answer: ___

(2)

---

11 A shop sells 4 stickers for 79p and 6 stickers for 79p.

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

Answer: ___

(2)

---

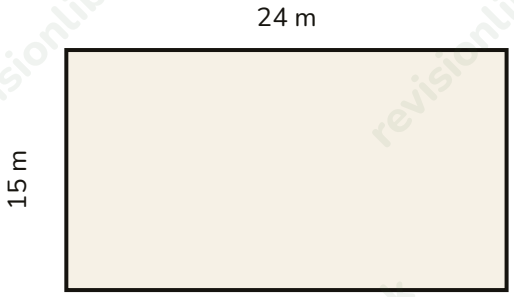
12 Use each of the digits 9, 6, 4, 2 once to make the smallest possible 4-digit number.

Answer: ___

(2)

© Revision Library | revisionlibrary.co.uk

13 A rectangular school garden measures 24 m in length and 15 m in width.



(a) Find the perimeter of the garden. **(2)**

.....

(b) The garden is to be covered with turf costing £3 per square metre. Work out the total cost of the turf. **(3)**

.....

14 Two whole numbers have a sum of 18 and a product of 80.

What are the two numbers? Write the smaller one first.

Answer: ___ and ___

(2)

© Revision Library | revisionlibrary.co.uk

15 Jade is 3 times as old as George. Together their ages add up to 32.

How old is George?

Answer: ___

(2)

---

16 The table shows the number of books read by four classes during a school reading challenge held from 01/06/2026 to 30/06/2026.

Class	Books read
5A	48
5B	35
5C	52
5D	41

(a) How many more books did Class 5C read than Class 5B? **(1)**

.....

(b) Find the total number of books read by all four classes. **(2)**

.....

(c) The school set a target of reading 200 books in total during the challenge. By how many books did the four classes miss the target? **(2)**

.....

© Revision Library | revisionlibrary.co.uk

Mark scheme · 1.3 Problem Solving Skills Pack: Test Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

all five numbers in the correct ascending order: 4028, 4082, 4208, 4802, 4820 cao	B2
order with no more than one number out of place oe	B1

Answer: **4028, 4082, 4208, 4802, 4820**

Question 2

7 x 8 oe	M1
56 cao	A1

Answer: **56 cakes**

Question 3

(a) finds the scale factor 30 / 12 = 2.5 oe	M1
(a) 250 g cao	A1

(a) Answer: **250 g**

(b) 150 x 2.5, ft from part (a)	M1
(b) 375 g cao	A1

(b) Answer: **375 g**

(c) recognises that 250 g of butter requires 1 whole 500 g bag, ft from part (a), cost £4	M1
(c) recognises that 375 g of oats requires 1 whole 500 g bag, ft from part (b), cost £2	M1
(c) £6 cao	A1

(c) Answer: **£6**

Question 4

finds 10% of 84 = 8.40, then 30% = 8.40 x 3 = 25.20 (or equivalent method) oe	M1
84 - 25.20 = 58.80 (sale price of one coat) oe ft	M1
58.80 x 2 oe ft	M1
£117.60 cao	A1

Answer: **£117.60**

Question 5

(a) -4 + 11 oe	M1
(a) 7°C cao	A1

(a) Answer: **7°C**

(b) 8°C cao, ft from part (a)	B1

(b) Answer: **8°C**

Question 6

20 / 2 = 10 seen	M1
60 cao	A1

Answer: **60**

Question 7

uses the mean or tests numbers	M1
11 cao	A1

Answer: **11**

Question 8

4 equal parts seen	M1
11 cao	A1

Answer: **11**

Question 9

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

Answer: **29 minutes**

Question 10

8 x 2 seen	M1
16 cao	A1

Answer: **16**

Question 11

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

Answer: **6**

Question 12

digits placed in value order	M1
2,469 cao	A1

Answer: **2,469**

Question 13

(a) 24 + 24 + 15 + 15 oe (24 + 15) x 2	M1
(a) 78 m cao	A1

(a) Answer: **78 m**

(b) 24 x 15 = 360 (finds area in m^2) oe	M1
(b) 360 x 3 oe	M1
(b) £1080 cao	A1

(b) Answer: **£1080**

Question 14

tests pairs that add to the sum	M1
8 and 10 cao	A1

Answer: **8 and 10**

Question 15

4 equal parts seen	M1
8 cao	A1

Answer: **8**

Question 16

(a) 17 cao	B1

(a) Answer: **17 books**

(b) 48 + 35 + 52 + 41 oe	M1
(b) 176 cao	A1

(b) Answer: **176 books**

(c) 200 - 176, ft from part (b)	M1
(c) 24 cao (the classes missed the target by 24 books)	A1

(c) Answer: **24 books (the classes missed the target by 24 books)**

© Revision Library | revisionlibrary.co.uk