

# YEAR 8 PROCEDURAL TEST A

## SOLUTIONS

NAME: .....

Score: ..... / 36

1.  $6 \times 8 \div (4 \times 3) = 4$  (1)

2. 

All DVDs £7.99
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 How many DVDs can you buy with £50?  
**6 (because  $6 \times 8 = 48$ )** (1)

3. Find 25% of £56       **$\frac{1}{4}$  of 56 = 56/4      £14** (1)

4. 

Time in Cardiff 09:00
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Time in Boston 04:00
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Later that day it is 15 : 30 in Cardiff. What time is it in Boston?  
**Boston is 5 hours behind, so      10 : 30** (1)

5. Complete this table

	Greater than $\frac{1}{4}$	Less than $\frac{1}{4}$
2	✓	
0.08		✓
$\frac{1}{3}$	✓	
0.3	✓	

(1)

6.  $0.8 \text{ km} = \mathbf{800}$  metres (1)

7.  $12 \times 14 = \mathbf{168}$  (1)

8. **Subtract** 0.06 from 0.3  $\mathbf{0.24}$  (1)

9. **Complete this invoice**

<b>7</b> hours at £45 for each hour: total cost	£ 315
Plus tax at 10% of the total cost	£ <b>31.50</b> .
Grand total	£ <b>346.50</b>

(2)

10. Work out how many fifths there are in  $2\frac{1}{5}$   $\mathbf{11}$  (1)

11. 250g of Salmon costs £3.75. How much is that per 100g?  
 $\mathbf{50g = 375/5 = 75p, \quad so \ 100g = 2 \times 75p = \quad \mathbf{£1.50}}$  (2)

12.  $800 \times \mathbf{0.001} = 0.8$  (1)

13. Alfie knows that 4 pints = 2.27 litres. How many litres in 10 pints?  
 $\mathbf{8 \ pints = 4.54 \ litres, \quad 2 \ pints = 1.135 \ litres, \ adding \ gives}$   
 $\mathbf{10 \ pints = 5.675 \ litres}$  (2)

14.

MENU	
Fish & Chips	£7.99
Jacket Potato	£3.85
Lasagne	£4.99

Some friends order 2 lasagne, 3 fish and chips and 1 jacket potato.

**Estimate** the total cost, to the nearest £.

$$(2 \times 5) + (3 \times 8) + 4 = 10 + 24 + 4 = \quad \mathbf{\pounds 38} \quad (1)$$

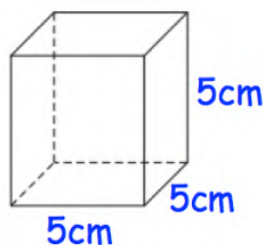
15.  $2.24 + 2.25 + 2.26 = \mathbf{6.75} \quad (1)$

16. Round 888, 888 to **three** significant figures  $\mathbf{889,000} \quad (1)$

Round 234.784 to 1 decimal place  $\mathbf{234.8} \quad (1)$

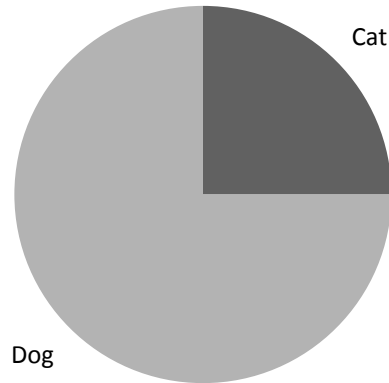
17.  $1 \text{ m}^2 = \mathbf{1\text{m} \times 1\text{m} = 100\text{cm} \times 100\text{cm} = 10,000 \text{ cm}^2} \quad (1)$

18. Work out the volume of this cube



$$\begin{aligned} \mathbf{\text{Volume}} &= \mathbf{\text{Length} \times \text{Width} \times \text{Height}} \\ &= \mathbf{5 \times 5 \times 5 = 125 \text{ cm}^3} \end{aligned} \quad (1)$$

19. Pie chart to show the proportion of cats and dogs owned by year 8



The ratio of **cats to dogs** is **1: 3** (1)

If there are 16 pets altogether, how many dogs are there? **12** (1)

20. Work out  $4^3 - 4^2$  **= 64 - 16 = 48** (1)

21. Circle the fraction that is nearest to 0.7.

$$\frac{2}{3}$$

$$\frac{4}{5}$$

$$\frac{3}{5}$$

$$\frac{13}{20}$$

**0.66..**

**0.8**

**0.6**

**0.65**

**Answer:**  $\frac{2}{3}$  (1)

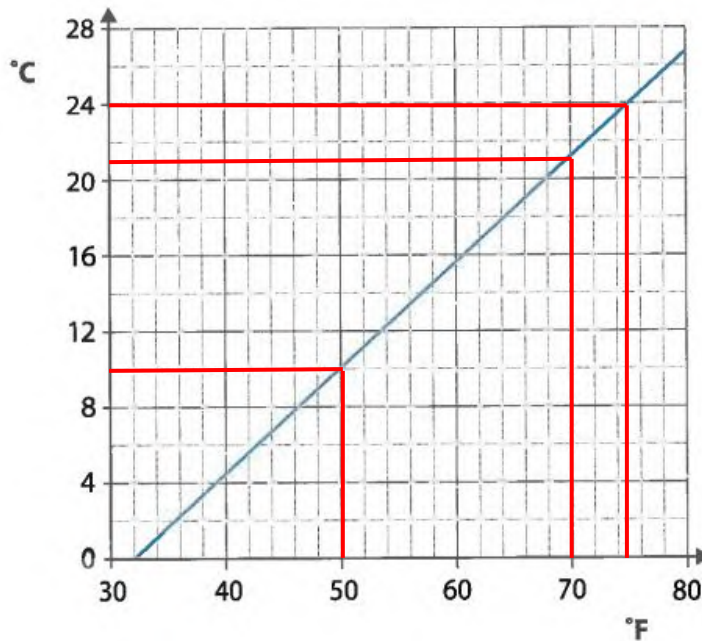
22. The reciprocal of  $\frac{3}{4}$  is  $\frac{4}{3}$  (1)

23. The perimeter of a square is 32cm. What is the area?

**Side of square = 8cm, so area = 8 x 8 = 64cm<sup>2</sup>** (1)

24.

Changing between °F and °C



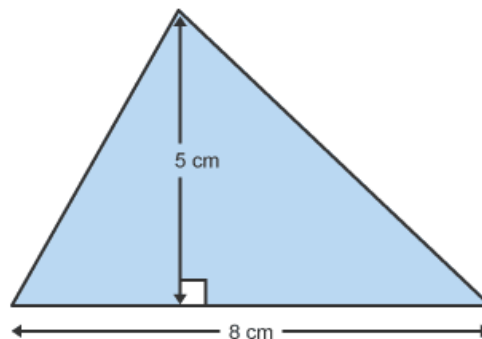
$21\text{ }^{\circ}\text{C} = 70\text{ }^{\circ}\text{F}$  (1)

When the temperature goes up by  $14\text{ }^{\circ}\text{C}$ , what does it go up by in  $^{\circ}\text{F}$ ?

$10\text{ }^{\circ}\text{C} = 50\text{ }^{\circ}\text{F}$       and       $24\text{ }^{\circ}\text{C} = 75\text{ }^{\circ}\text{F}$

So if it goes up by  $14\text{ }^{\circ}\text{C}$ , it goes up by  $25\text{ }^{\circ}\text{F}$  (1)

25. Work out the area of this shape



$\text{Area of a triangle} = \frac{1}{2}(\text{base} \times \text{height}) = \frac{1}{2} \times (8 \times 5) = 20\text{ cm}^2$  (2)

26. Catherine is working out a problem on her calculator and gets an answer of 4.9 minutes. How long is this in minutes and second?

4 minutes and **54** seconds. (1)

27. This exercise bike was £450. If the price is now £270, what is the percentage reduction?



**10% = £45, reduction is £450 - £270 = £180, £180 = 40 %** (1)

28. Restaurants in Wales are given a hygiene rating. Megan collates information for 10 restaurants.

6 had a hygiene rating of 5  
 3 had hygiene rating of 4  
 1 had a hygiene rating of 3

Work out the mean hygiene rating.

**Total score = (6 x 5) + (3 x 4) + (1 x 3) = 30 + 12 + 3 = 45**

**Mean = Total Score/ How Many = 45 / 10 = 4.5** (2)

**END OF TEST. GO BACK AND CHECK YOUR WORK**