



**BROAD HORIZON**  
— T U I T I O N —

# **11+ Tuition**

**Year 5 - Online**

**Week 8**

**ANSWERS**

1) Add 95 minutes to 11:37pm.

**1:12am**

2) What is the average of, 26.3 seconds, 35 seconds and 14.7 seconds?

**25.3s**

3)  $25 - 179 =$

**-154**

4)  $4 - 34 =$

**-30**

5)  $19 - 48 =$

**-29**

6)  $9.36 \div 1000 =$

**0.00936**

7)  $2 \div 1000 =$

**0.002**

8) Convert 1790g to Kg

**1.79kg**

9)  $257 \times 9 =$

**2313**

10)  $(31 + 17 - 42)^2 + 7^2 - 3 + 2$

## Starter Task – Quick Revision

Workout the area and perimeter of shapes with the following dimensions

	Length	Width	Area	Perimeter
1)	4cm	8cm	<b>32cm<sup>2</sup></b>	<b>24cm</b>
2)	11mm	5mm	<b>55mm<sup>2</sup></b>	<b>32mm</b>
3)	2.5m	10m	<b>25m<sup>2</sup></b>	<b>25m</b>

4)  $2 - 18 = \mathbf{-16}$

5)  $33 - 47 = \mathbf{-15}$

6)  $45 \div 1000 = \mathbf{0.045}$

7)  $2.18 \times 1000 = \mathbf{2180}$

8) Convert 2050g to Kg **2.05kg**

9)  $79 \times 8 = \mathbf{632}$

10)  $(3 + 17 - 12)^2 + 3^2 - (6 \times 3 \div 2)^2 = \mathbf{-8}$

# Exercise C

1. Inefficient
2. Impatient
3. Instance
4. Opinion
5. Crucial
6. Complex
7. Stimulate
8. Ration
9. Excellent
10. Ogre

## Exercise C

1. Illiterate
2. Norm
3. Disobedient
4. Repulsive
5. Disappoint
6. Arrival
7. Hesitant
8. Solid
9. Decrease
10. Grief

## Answers for Pages 6-7

# Calculate and Compare the Area of Rectangles Answers

1.  $4 \times 2 = 8\text{cm}^2$

2.  $3 \times 3 = 9\text{cm}^2$

3.  $2 \times 5 = 10\text{cm}^2$

4.  $6 \times 1 = 6\text{cm}^2$

5.  $3 \times 2 = 6\text{cm}^2$

6.  $2 \times 4 = 8\text{cm}$



# Perimeter Practice- Answers

Question	Answer
1.	Calculate the perimeter of these shapes. Which is the odd one out and why?
<p>Odd shape out: <b>Shape C</b></p> <p>Reason: a sentence to show that Shape C has a perimeter of 12m and all the other shapes have a perimeter of 11cm.</p>	
2.	Calculate the length of <i>the</i> missing side.
a. 3cm	
b. 4cm	
c. 5cm	



2.	Calculate the length of the missing side.
a. 7cm	
b. 4cm	
c. 5cm	

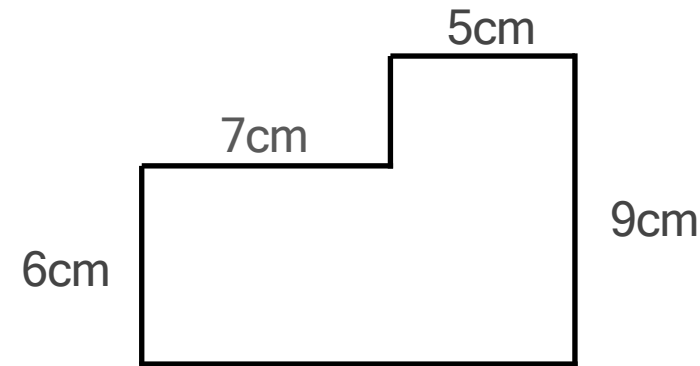
# Area of Compound Shapes Answers

\*

7	Area a: <b>18cm<sup>2</sup></b> Area b: <b>12cm<sup>2</sup></b> Area c: <u>10cm<sup>2</sup></u> Total: <b>40cm<sup>2</sup></b>
8	Area a: <b>8cm<sup>2</sup></b> Area b: <b>12cm<sup>2</sup></b> Area c: <u>10cm<sup>2</sup></u> Total: <b>30cm<sup>2</sup></b>
9	Area a: <b>14cm<sup>2</sup></b> Area b: <b>15cm<sup>2</sup></b> Area c: <b>16cm<sup>2</sup></b> Total: <b>45cm<sup>2</sup></b>
10	Area a: <b>16cm<sup>2</sup></b> Area b: <b>12cm<sup>2</sup></b> Area c: <b>15cm<sup>2</sup></b> Total: <b>43cm<sup>2</sup></b>

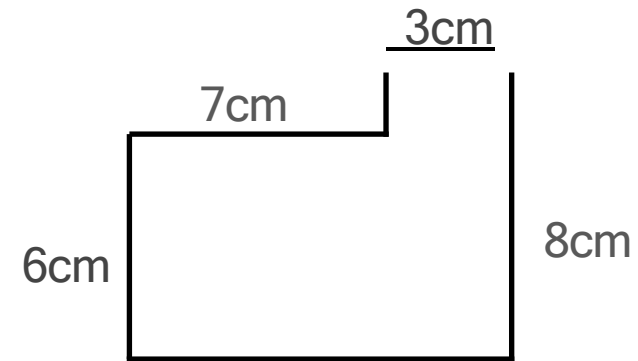
# Compound Area Answers

**L**



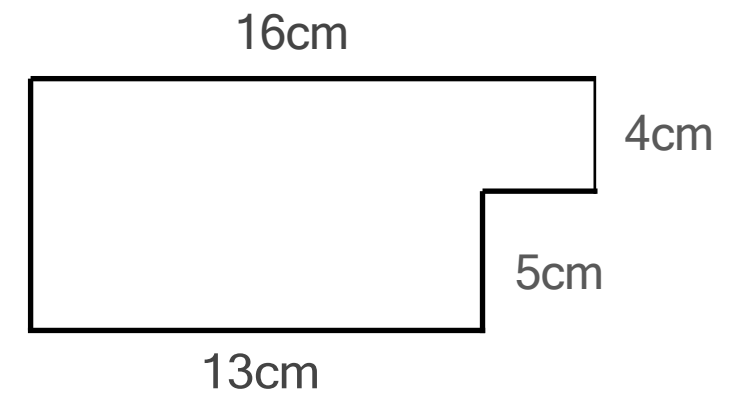
$$\begin{aligned}\text{Area} &= (6\text{cm} \times 7\text{cm}) + (5\text{cm} \times 9\text{cm}) \\ &= 42\text{cm}^2 + 45\text{cm}^2 = \mathbf{87\text{cm}^2}\end{aligned}$$

**4.**



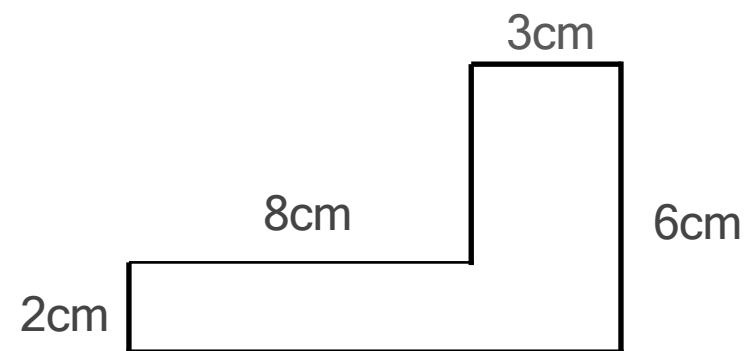
$$\begin{aligned}\text{Area} &= (8\text{cm} \times 3\text{cm}) + (7\text{cm} \times 6\text{cm}) \\ &= 24\text{cm}^2 + 42\text{cm}^2 = \mathbf{66\text{cm}^2}\end{aligned}$$

**7.**



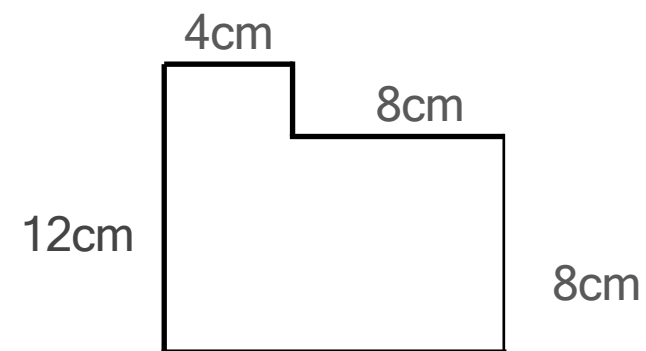
$$\begin{aligned}\text{Area} &= (16\text{cm} \times 4\text{cm}) + (13\text{cm} \times 5\text{cm}) \\ &= 64\text{cm}^2 + 65\text{cm}^2 = \mathbf{129\text{cm}^2}\end{aligned}$$

**2.**



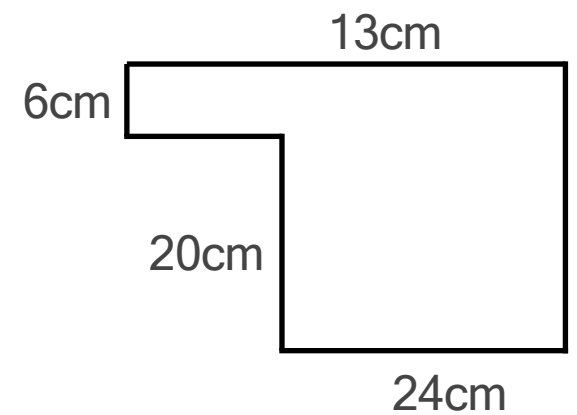
$$\begin{aligned}\text{Area} &= (2\text{cm} \times 8\text{cm}) + (3\text{cm} \times 6\text{cm}) \\ &= 16\text{cm}^2 + 18\text{cm}^2 = \mathbf{34\text{cm}^2}\end{aligned}$$

**5.**



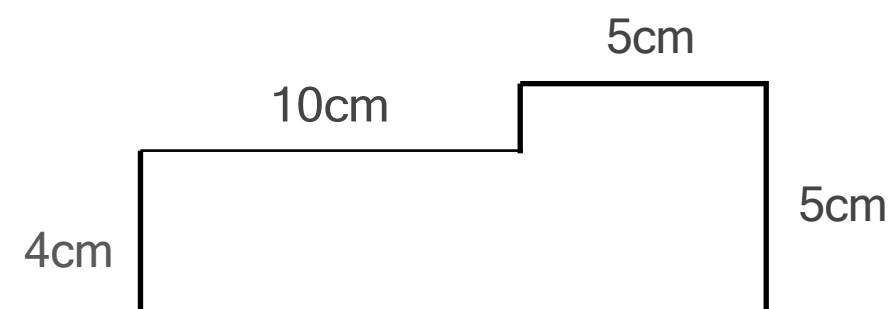
$$\begin{aligned}\text{Area} &= (12\text{cm} \times 4\text{cm}) + (8\text{cm} \times 8\text{cm}) \\ &= 48\text{cm}^2 + 64\text{cm}^2 = \mathbf{112\text{cm}^2}\end{aligned}$$

**8.**



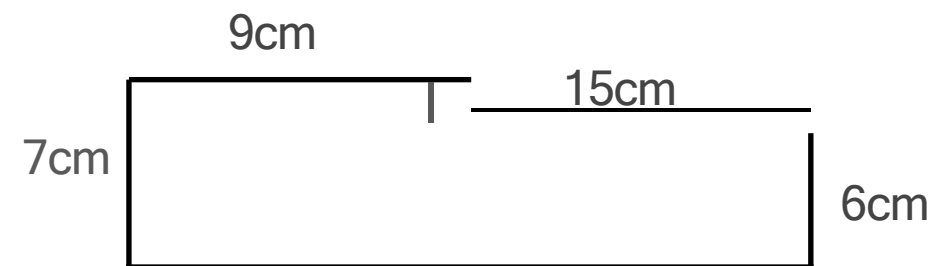
$$\begin{aligned}\text{Area} &= (6\text{cm} \times 32\text{cm}) + (20\text{cm} \times 24\text{cm}) \\ &= 192\text{cm}^2 + 480\text{cm}^2 = \mathbf{672\text{cm}^2}\end{aligned}$$

**3.**



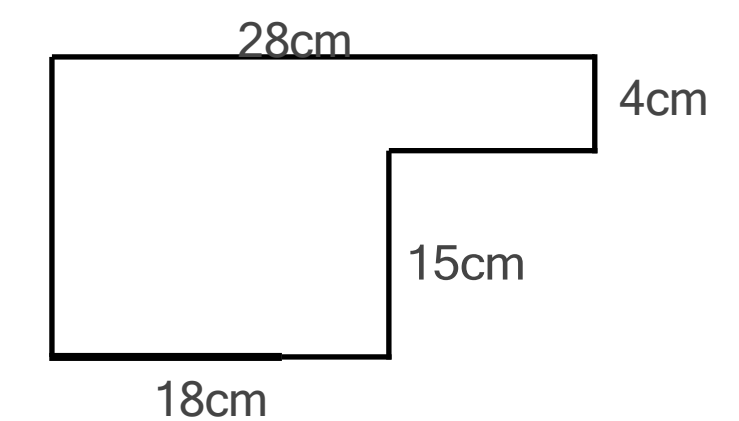
$$\begin{aligned}\text{Area} &= (4\text{cm} \times 10\text{cm}) + (5\text{cm} \times 5\text{cm}) \\ &= 40\text{cm}^2 + 25\text{cm}^2 = \mathbf{65\text{cm}^2}\end{aligned}$$

**6.**



$$\begin{aligned}\text{Area} &= (7\text{cm} \times 9\text{cm}) + (15\text{cm} \times 6\text{cm}) \\ &= 63\text{cm}^2 + 90\text{cm}^2 = \mathbf{153\text{cm}^2}\end{aligned}$$

**9.**



$$\begin{aligned}\text{Area} &= (28\text{cm} \times 4\text{cm}) + (18\text{cm} \times 15\text{cm}) \\ &= 112\text{cm}^2 + 270\text{cm}^2 = \mathbf{382\text{cm}^2}\end{aligned}$$

**\*\*\***

**Area Of Compound Shapes- Challenge**

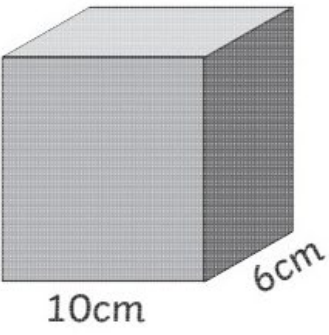
<b>Question</b>	<b>Answer</b>		
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.			
1	Total: <b>105m<sup>2</sup></b>	4	Total: <b>71m<sup>2</sup></b>
2	Total: <b>98m<sup>2</sup></b>		
3	Total: <b>59m<sup>2</sup></b>		

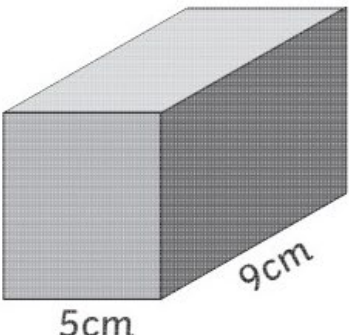
**Perimeter challenge- Answers**

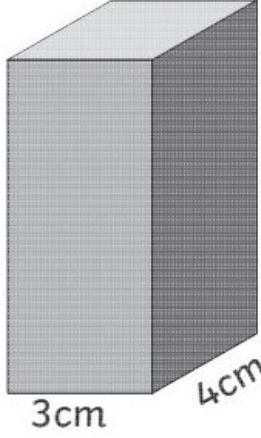
**\***

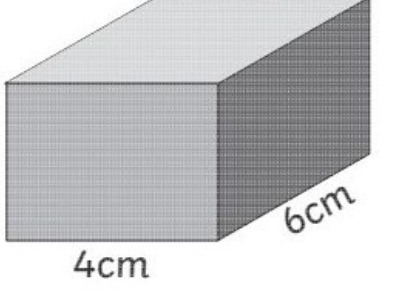
1. 30
2. 26
3. 38
4. 40
5. 56
6. 34
7. 52
8. 52
9. 60

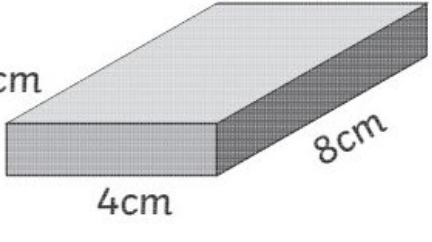
Calculate the volume of the following cuboids.

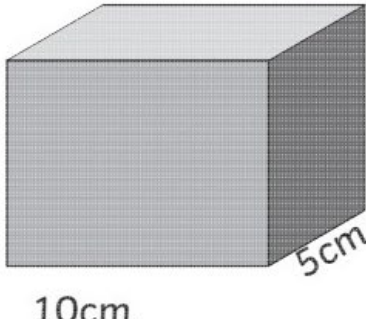
1.   
10cm  
10cm 6cm  
Volume =

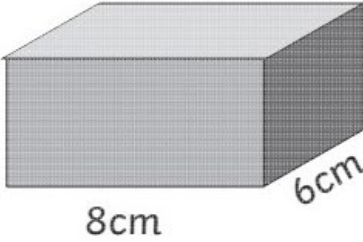
2.   
6cm  
5cm 9cm  
Volume =

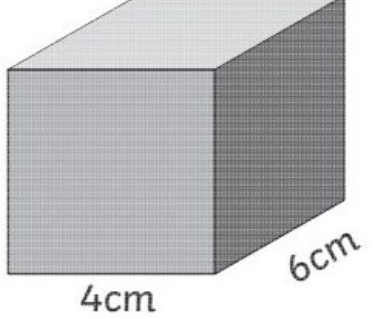
3.   
7cm  
3cm 4cm  
Volume =

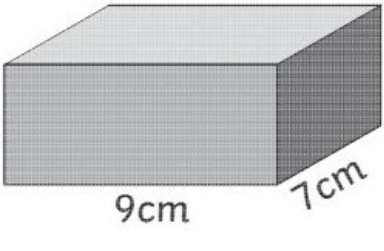
4.   
3cm  
4cm 6cm  
Volume =

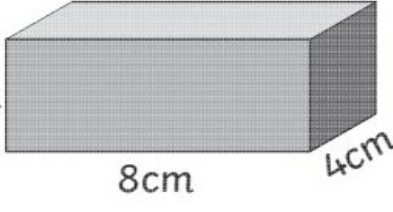
5.   
1cm  
4cm 8cm  
Volume =

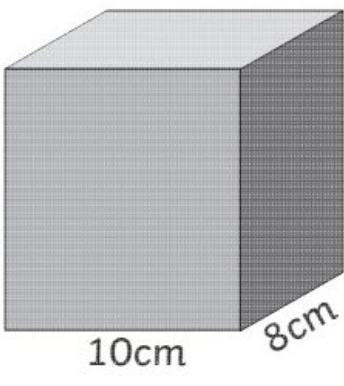
6.   
8cm  
10cm 5cm  
Volume =

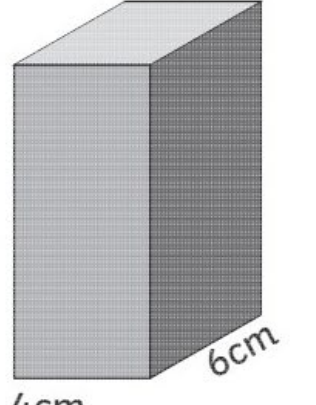
7.   
4cm  
8cm 6cm  
Volume =

8.   
4cm  
4cm 6cm  
Volume =

9.   
4cm  
9cm 7cm  
Volume =

10.   
3cm  
8cm 4cm  
Volume =

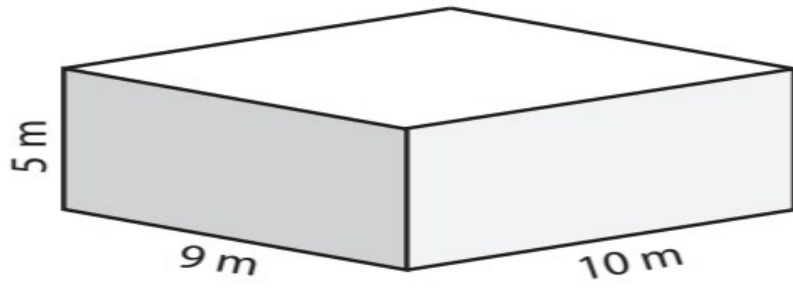
11.   
10cm  
10cm 8cm  
Volume =

12.   
10cm  
4cm 6cm  
Volume =

- 1)  $600^3$
- 2)  $270\text{cm}^3$
- 3)  $84\text{cm}^3$
- 4)  $72\text{cm}^3$
- 5)  $32\text{cm}^3$
- 6)  $400\text{cm}^3$
- 7)  $192\text{cm}^3$
- 8)  $96\text{cm}^3$
- 9)  $252\text{cm}^3$
- 10)  $96\text{cm}^3$
- 11)  $800\text{cm}^3$
- 12)  $240\text{cm}^3$

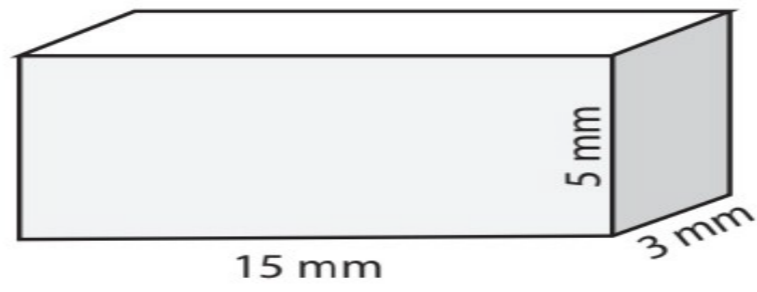
Find the surface area of each rectangular prism.

1)



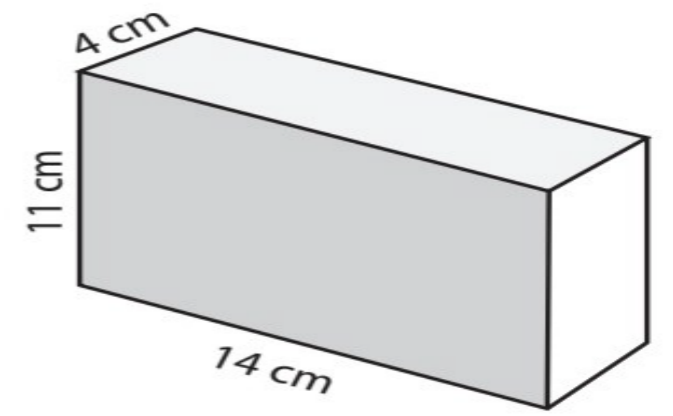
Surface Area = \_\_\_\_\_

2)



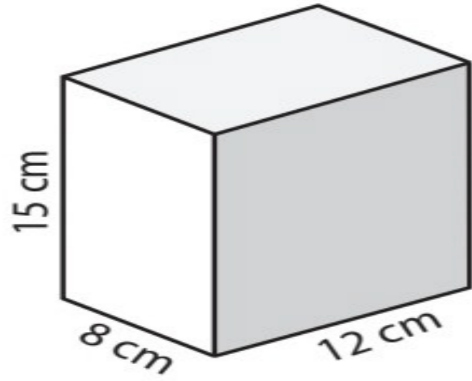
Surface Area = \_\_\_\_\_

3)



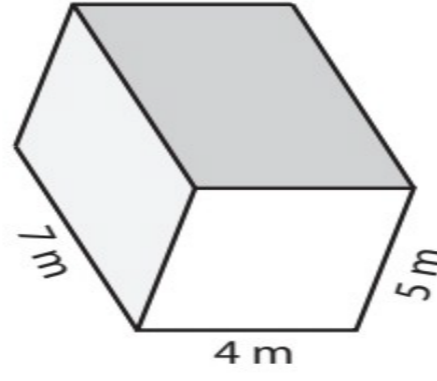
Surface Area = \_\_\_\_\_

4)



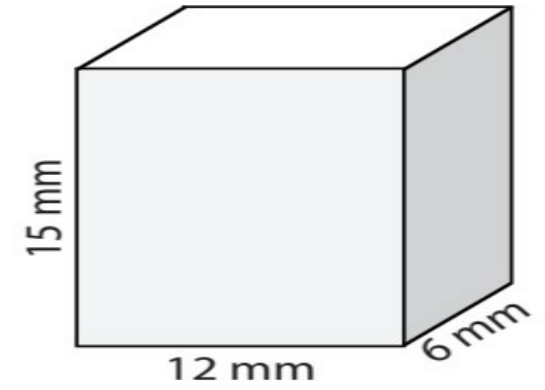
Surface Area = \_\_\_\_\_

5)



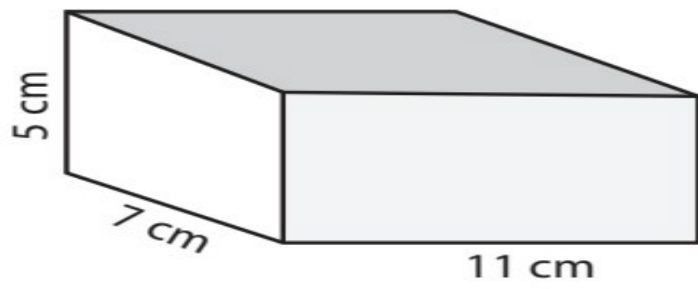
Surface Area = \_\_\_\_\_

6)



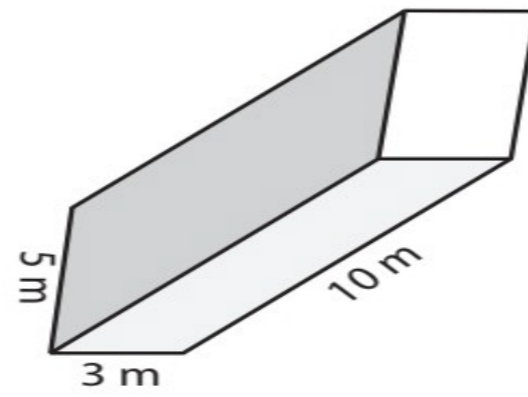
Surface Area = \_\_\_\_\_

7)



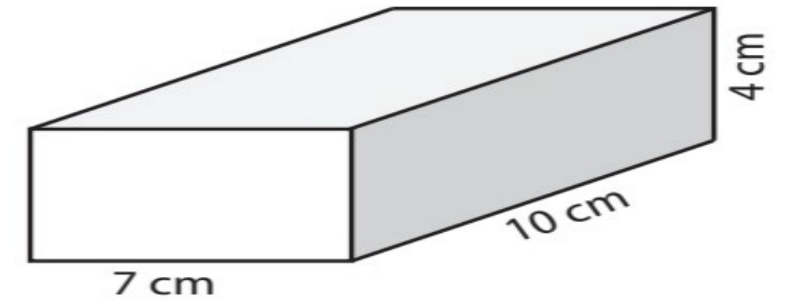
Surface Area = \_\_\_\_\_

8)



Surface Area = \_\_\_\_\_

9)



Surface Area = \_\_\_\_\_

- 1)  $370\text{m}^2$
- 2)  $270\text{mm}^2$
- 3)  $508\text{cm}^2$
- 4)  $792\text{cm}^2$
- 5)  $166\text{m}^2$
- 6)  $684\text{mm}^2$
- 7)  $334\text{cm}^2$
- 8)  $190\text{m}^2$
- 9)  $276\text{cm}^2$

## **TYPE ELEVEN:**

<b>E</b>	<b>A</b>	<b>E</b>
<b>C</b>	<b>C</b>	<b>A</b>
<b>B</b>	<b>D</b>	<b>B</b>
<b>A</b>	<b>A</b>	<b>E</b>

<b>C</b>	<b>B</b>	<b>D</b>
<b>D</b>	<b>A</b>	<b>E</b>
<b>E</b>	<b>A</b>	<b>C</b>
<b>B</b>	<b>C</b>	<b>B</b>

## **TYPE TWELVE:**

sparrow  
dogfish  
mongoose  
heron  
racket  
petal  
cone  
pip  
mayonnaise  
metal  
bottle  
nest  
pearl  
queen  
brother  
fork  
cereal  
athlete  
cat  
whales

## Test 11

1. they worked silently in the classroom
2. the children played happily in the garden
3. the horse ate the garden's grass forlornly
4. the horse stood forlornly in the field
5. the freshly baked bread smelled enticing
6. her trousers were uncomfortable
7. the orange was exceptionally juicy
8. the water was deep and clear
9. the apple tree was in blossom
10. they played on the beach happily

# ASSESSMENT TEST 5

## Section 1 - Find the Figure

### Like the First Two

1. **A**

All figures must have four sides.

2. **A**

All figures must have a large square with one of its flat sides at the bottom. There must be two small grey triangles in two of the square corners. Only two of each triangle corners must touch the sides of the square (they point towards the middle of the square).

3. **C**

All figures must have a black ellipse and a white circle. The flag in each figure must point to the right.

4. **C**

All figures must be identical apart from rotation.

5. **C**

All figures must have a half-ellipse shape with its flat side at the bottom. This shape must be divided into four stripes, with a circle at the top.

## Section 2 - Odd One Out

1. **B**

In all other figures, the line comes out of the side of the shape nearest to the set of three squares.

2. **E**

All other figures contain at least one white circle.

3. **D**

In all other figures, the small semicircle inside the large white shape has its flat side facing down.

4. **E**

In all other figures, there are three short lines crossing the long line.

5. **A**

In all other figures, the two shapes overlap.

## Section 3 - Complete the Grid

1. **E**

Working from left to right, the figure reflects across.

2. **B**

Working from left to right, the left-hand shape moves above the right-hand shape. The line joining the shapes rotates 90 degrees and another line is added.

3. **A**

Working from left to right, the figure rotates 90 degrees clockwise. The shading of the figure changes from white, to grey, to black.

4. **C**

Working from left to right, the figure in the right-hand grid square is made by joining the figure in the left-hand grid square with the figure in the middle grid square. This new shape turns white.

## Section 4 - Complete the Series

1. **C**

In each series square, the shading in the circle alternates between hatched and cross-hatched. The circle alternates between being behind and in front of the black star.

2. **D**

In each series square, a black shape appears in the next segment of the pentagon, going in a clockwise direction. The lines inside the pentagon alternate between solid and dashed.

3. **D**

The flower gains a grey petal in each series square.

4. **D**

The heart rotates 90 degrees clockwise in each series square and moves clockwise one place around the four corners of the series square.

5. **A**

All the dots move one place to the right in each series square. When they reach the right-hand side, they start again from the left.

## Section 5 - Reflect the Figure

1. **C**

In option A, the small shapes are missing.

In option B, the small shapes have swapped places. Option D is the wrong shape.

2. **A**

Option B is the wrong shape and option C has the wrong shading. In option D, the line has too many loops.

3. **A**

Options B and D are the wrong shape.

Option C has been reflected across and downwards.

4. **C**

Option A and D have the wrong shading.

In option B, the spade has been reflected downwards and the fork has too many prongs.

5. **C**

Option A has not been reflected and has the wrong shading. In option B, the parallelogram has not been reflected. In option D,

the ellipse has not been reflected.

## Section 6 - Look at the Figure from the Right

1. **A**

The grey block should sit on top of the white block, which rules out options B and C. The grey block should be two cubes long, which rules out option D.

2. **A**

The grey block should sit on top of a white block, which rules out options B and C. There should be a white cube at the top of the figure, which rules out option D.

3. **D**

There should be one white cube on top of the grey block, which rules out options B and C. This white cube should be in the middle of the figure, which rules out option A.

4. **D**

There should be a white block two cubes long at the top of the figure, which rules out options A, B and C.

	Length	Width	Height	Volume
1)	4cm	8cm	3cm	<b>96cm<sup>3</sup></b>
2)	11mm	5mm	2cm	<b>110cm<sup>3</sup></b>
3)	2.5m	10m	5cm	<b>125cm<sup>3</sup></b>

Workout the following:

		Mode	Range	Mean	Median
4)	3, 4, 8, 1	<b>None</b>	<b>7</b>	<b>4</b>	<b>3.5</b>
5)	14, 11, 11	<b>11</b>	<b>3</b>	<b>12</b>	<b>11</b>
6)	4, 3, 9, 9, 3	<b>9</b>	<b>6</b>	<b>5.6</b>	<b>4</b>

7) Round 2.598 to two decimal places

**2.60**

8) Round 3,251 to the nearest hundred

**3300**

9) Add 137 minutes to 11:15am

**1:32pm**

10) Add 84 minutes to 3:47pm

**5:11pm**



# Vocabulary 11

## Exercise A

1. Arrival
2. Disappoint
3. Hesitant
4. Illiterate
5. Solid
6. Norm
7. Grief
8. Decrease
9. Disobedient
10. Repulsive

## Exercise B

1. Arrival
2. Hesitant
3. Solid
4. Norm
5. Repulsive
6. Disobedient
7. Disappoint
8. Illiterate
9. Decrease
10. Grief

# Vocabulary 12

## Exercise A

1. Irritable
2. Significance
3. Generate
4. Grenade
5. Album
6. Refuse
7. Penetrate
8. Oblivion
9. Dismissal
10. Misbehave

## Exercise B

1. Penetrate
2. Oblivion
3. Album
4. Significance
5. Dismissal
6. Irritable
7. Generate
8. Refuse
9. Grenade
10. Misbehave