

CONTENTS

Homework	Contents	Ex 1	Ex 2	Ex 3	Ex 4
1	Mixed Third Level Review				
2	Mixed Homework 1				
3	Mixed Third Level Review				
4	Mixed Homework 1				
5	Mixed Homework 4				
6	Mixed Homework 2				
7	Mixed Homework 2				
8	Mixed Homework 4				
9	Speed, Distance, Time				
10	Mixed Homework 1				
11	Volume and Surface Area 1				
12	Mixed Homework 4				
13	Volume and Surface Area 2				
14	Straight Line – Gradient				
15	Straight Line – Equation from Graph				
16	Straight Line – Mixed				
17	Sequences, Fractions, Algebra				
18	Expanding Brackets				
19	Factorising				
20	Solving Equations - Brackets				
21	Mixed Homework				
22	Solving Equations - Brackets				
23	Solving Equations - Fractions				
24	Mixed Homework 2				
25	Mixed Homework 3				
26	Solving Inequations				
27	Circles – Area and Perimeter				
28	Mixed Homework 2				
29	Mixed Homework 1				
30	Mixed Homework 5				
31	Mixed Homework 3				
32	Mixed Homework 6				
33	Pythagoras 1				
34	Pythagoras 2				
35	Mixed Homework 3				
36	Trigonometry 1				
37	Mixed Homework 1				
38	Trigonometry 2				
39	Similar Shapes				
40	Angles, Pythagoras				
41	Angles, Pythagoras				
42	Mixed Homework 2				
43	Mixed Homework 1				
44	Coordinates				
45	Mixed Homework 3				

Sample

CONTENTS Contd.

Homework	Contents	Ex 1	Ex 2	Ex 3	Ex 4
46	Mixed Homework 6				
47	Mixed Homework 2				
48	Mixed Homework 3				

Sample

Exercise 1

- If $x = 4$, $y = -2$ and $z = 3$ find:
 - $4x + 3y - 2z$
 - $x^2 - 4y + 6z$
- Solve $7x - 4 = 3x + 8$
- Evaluate: $6^2 - 2 \times (5 - 6)$ showing working
- Simplify $5a - 3 - 4a + 6$
- Round the following to 2 significant figures:
 - 0.0000936
 - 178,764
- Find $125 \div 0.005$
- Find $\frac{3}{7} \times \frac{1}{7}$

Exercise 2

- If $x = 4$, $y = -2$ and $z = 2$ find:
 - $5x + 3y^2 - 3z$
 - $x^2 + 2y + 5z$
- Solve $4x - 2 = 6x + 3$
- Evaluate: $2^2 - 2 \times (7 - 7)$ showing working
- Simplify $4a + 8 - 10a - 5$
- Round the following to 3 significant figures:
 - 0.01064
 - 5,784,984
- Find $180 \div 0.02$
- Find $\frac{2}{7} \times \frac{4}{5}$

Exercise 3

- If $x = -5$, $y = -2$ and $z = 3$ find:
 - $zx + 2y^2$
 - $2x - 4y^2 + 4z$
- Solve $7x - 5 = 9 - 6x$
- Evaluate: $9^2 - 2 \times (4 - 7)$ showing working
- Simplify $12a - 6 - 16a + 16$
- Round the following to 3 significant figures:
 - 0.004809
 - 606,486
- Find $0.032 \div 0.0004$
- Find $\frac{1}{6} \times \frac{3}{4}$

Exercise 4

- If $x = -5$, $y = -3$ and $z = 5$ find:
 - $2xy + 3z$
 - $3xyz$
- Solve $4 - 3x = 8x + 7$
- Evaluate: $7^2 - 4 \times (5 - 7)$ showing working
- Simplify $8a + 16 - 10 - 2a$
- Round the following to 3 significant figures:
 - 6.5073
 - 1,086,483
- Find $0.002 \div 0.00004$
- Find $\frac{5}{6} \times \frac{1}{5}$

CfE Outcomes	3-14a, 3-15a, 4-03b, 3-14a, 3-01a, 3-07a, 3-04a
---------------------	---

Exercise 1

- Convert each of these times to hours and minutes.
(a) 2.3 hours (b) 3.6 hours
- Convert each of these times to hours as a decimal
(a) 5 hours 42 minutes (b) 9 hours 18 minutes
- A plane travels at 520mph for 2.2 hours. Calculate the total distance travelled.
- A car covers 220 miles in 4 hours 42 minutes. Calculate the average speed of the journey.
- A boat travels 30miles at an average speed of 9mph. Calculate the time taken in hours and minutes.

Exercise 2

- Convert each of these times to hours and minutes.
(a) 8.7 hours (b) 1.5 hours
- Convert each of these times to hours as a decimal
(a) 4 hours 54 minutes (b) 2 hours 6 minutes
- A plane travels at 480mph for 5.4 hours. Calculate the total distance travelled.
- A car covers 240 miles in 5 hours 36 minutes. Calculate the average speed of the journey.
- A boat travels 20.4miles at an average speed of 6mph. Calculate the time taken in hours and minutes.

Exercise 3

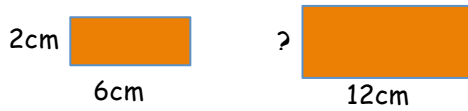
- Convert each of these times to hours and minutes.
(a) 5.25 hours (b) $8\frac{2}{3}$ hours
- Convert each of these times to hours as a decimal
(a) 7 hours 36 minutes (b) 4 hours 3 minutes
- A plane travels at 486mph for 3.6 hours. Calculate the total distance travelled.
- A car covers 280 miles in 6 hours 18 minutes. Calculate the average speed of the journey.
- A boat travels 34.2miles at an average speed of 9mph. Calculate the time taken in hours and minutes.

Exercise 4

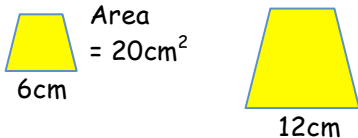
- Convert each of these times to hours and minutes.
(a) $4\frac{1}{3}$ hours (b) 6.9 hours
- Convert each of these times to hours as a decimal
(a) 1 hour 9 minutes (b) 3 hours 12 minutes
- A plane travels at 544mph for 5.9 hours. Calculate the total distance travelled.
- A car covers 300 miles in 6 hours 54 minutes. Calculate the average speed of the journey.
- A boat travels 16.1miles at an average speed of 7mph. Calculate the time taken in hours and minutes.

Exercise 1

1. These two rectangles below are similar. Find the length of the missing side.



2. The two trapeziums are similar. Calculate the area of the larger one.



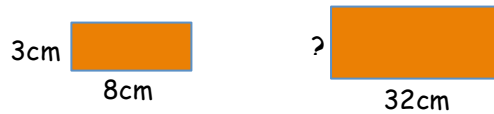
3. Change these times to hours and minutes
 (a) 6.3 hours (b) 4.7 hours

4. Solve: $2(2x - 4) = 12$

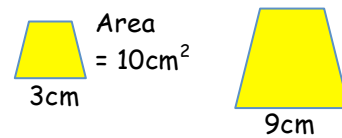
5. Find $\frac{3}{4} \div \frac{2}{5}$

Exercise 2

1. These two rectangles below are similar. Find the length of the missing side.



2. The two trapeziums are similar. Calculate the area of the larger one.



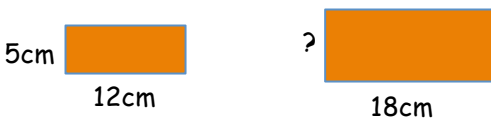
3. Change these times to hours and minutes
 (a) 2.1 hours (b) 3.5 hours

4. Solve: $3(5x - 2) = 30$

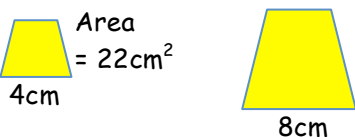
5. Find $\frac{2}{7}$

Exercise 1

1. These two rectangles below are similar. Find the length of the missing side.



2. The two trapeziums are similar. Calculate the area of the larger one



3. Change these times to hours and minutes
 (a) 9.6 hours (b) 2.8 hours

4. Solve: $4(6x - 1) = 20$

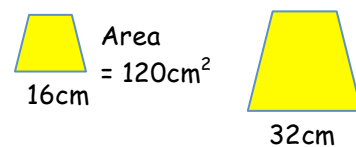
5. Find $\frac{2}{9} \div \frac{1}{4}$

Exercise 2

1. The two rectangles below are similar. Find the length of the missing side.



2. The two trapeziums are similar. Calculate the area of the larger one



3. Change these times to hours and minutes
 (a) 10.25 hours (b) 6.75 hours

4. Solve: $3(7x + 2) = 48$

5. Find $\frac{3}{5} \div \frac{1}{6}$

CfE Outcomes	4-17b, 4-15a, 4-10b, 4-07b
---------------------	----------------------------