

# S1 Block Test Three Revision Booklet MP2

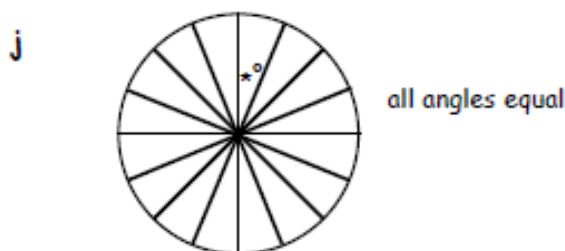
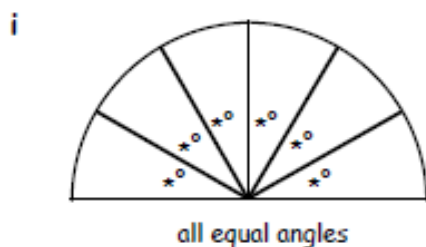
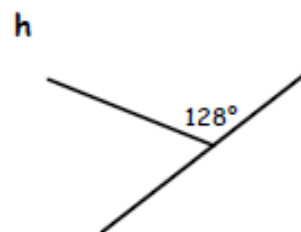
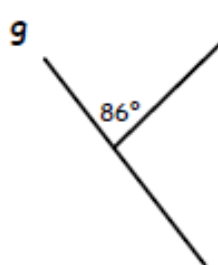
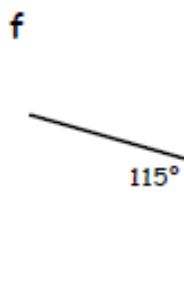
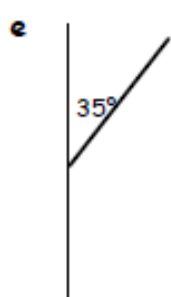
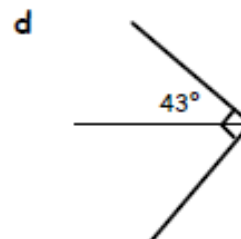
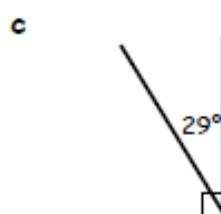
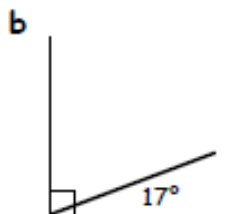
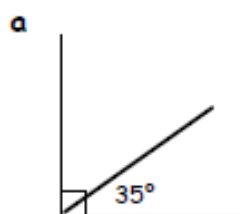


# Angles

## Exercise 1

### Complementary & Supplementary Angles

1. Calculate the missing angles in each of the following :-



2. Write down the complement of :-

a  $60^\circ$

b  $20^\circ$

c  $37^\circ$

d  $1^\circ$

3. Write down the supplement of :-

a  $30^\circ$

b  $110^\circ$

c  $77^\circ$

d  $9.5^\circ$

4. What angle is its own :-

a complement

b supplement ?

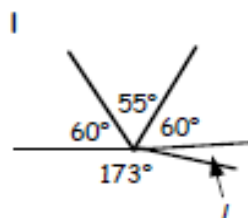
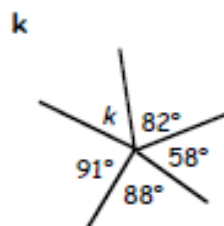
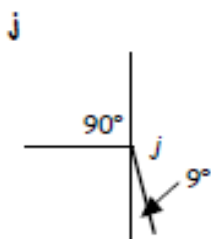
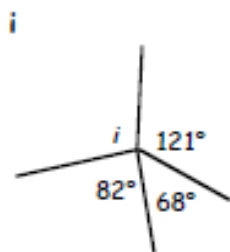
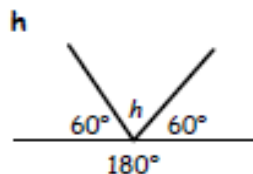
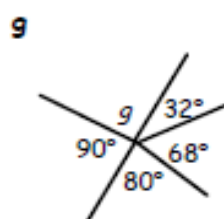
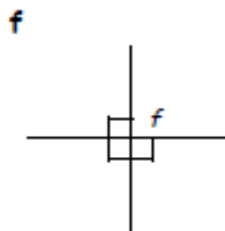
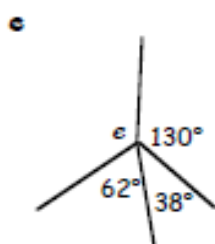
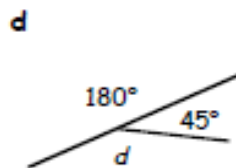
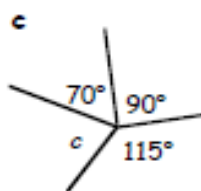
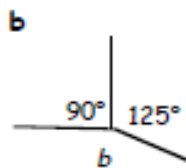
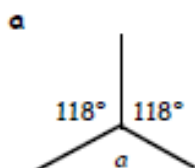
5. What is the **sum** of all the angles round a point ?

# Angles

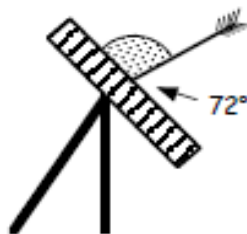
## Exercise 2

### Angles Round a Point

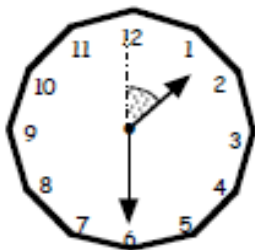
1. Calculate (do not measure) the sizes of the angles marked  $a$ ,  $b$ ,  $c$ , .....



2. An arrow lands on a target as shown. Calculate the size of the shaded angle.



3.



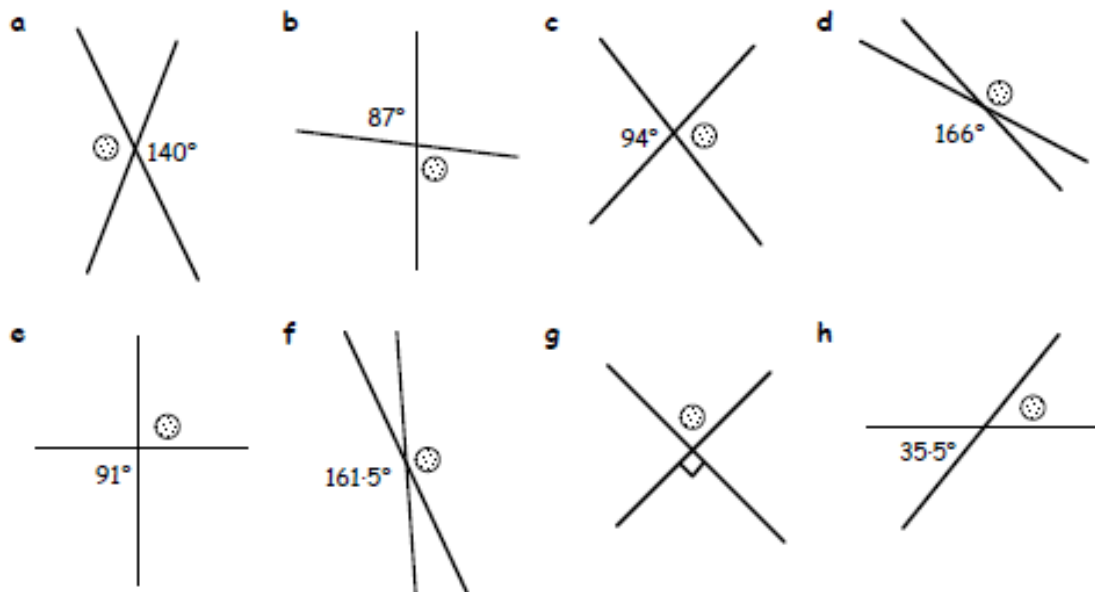
This clock shows a time of 1.30.  
Calculate the size of the shaded angle.

4. Five angles round a point are  $39^\circ$ ,  $122^\circ$ ,  $77^\circ$ , and two unknown equal angles. Find one of the unknown angles.

# Angles

## Exercise 3 Vertically Opposite Angles

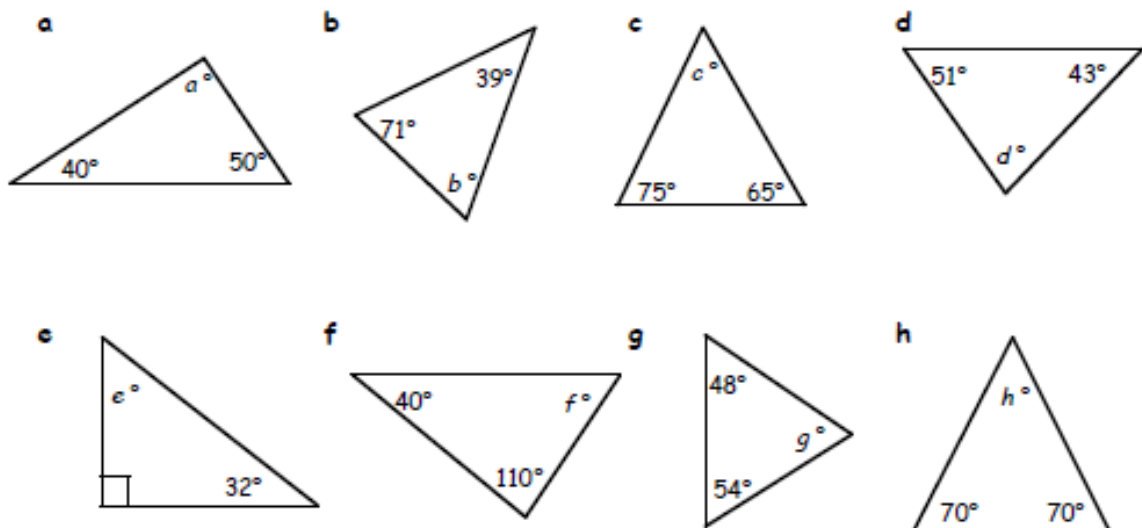
1. Write down the sizes of all the angles marked with a ☉.



2. Sketch all the diagrams above and fill in all the missing angles.

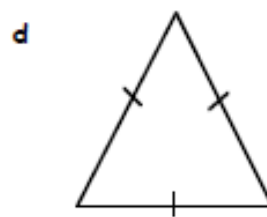
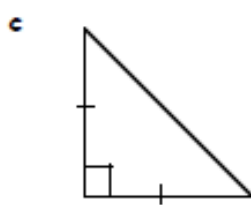
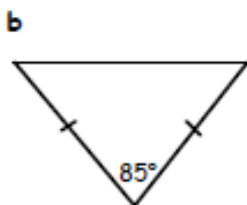
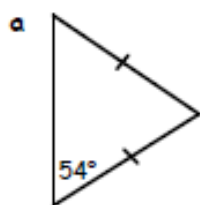
## Exercise 4 Angles in a Triangle

1. Calculate the size of the angles marked  $a$ ,  $b$ ,  $c$ , .....

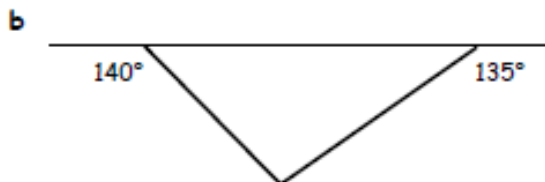
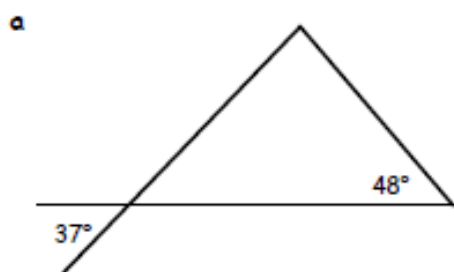


# Anales

2. Copy each diagram below and fill in all the missing angles :-



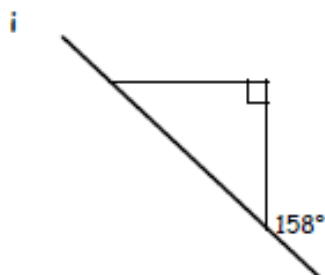
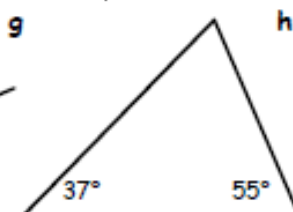
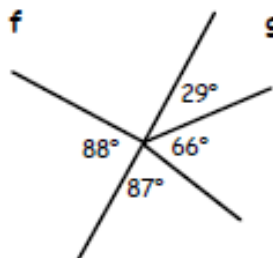
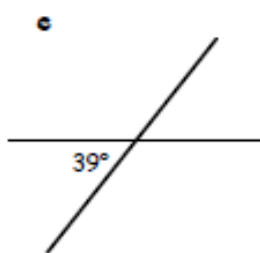
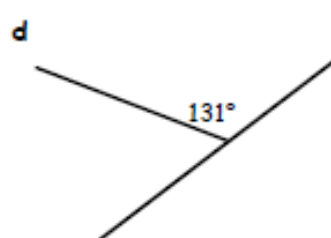
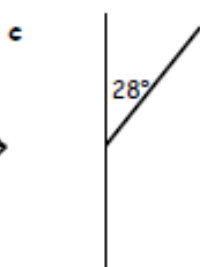
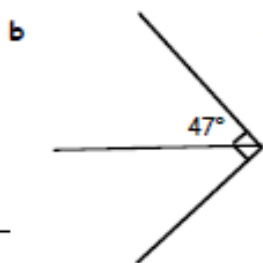
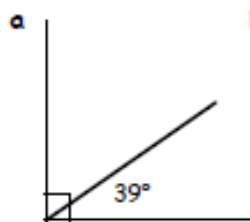
3. Copy each diagram below and fill in all the missing angles :-



## Exercise 5

## Angles Mixed Exercise

1. Copy all the diagrams below filling in all missing angles :-



# Answers

## Answers to Chapter 3

### Exercise 1 - Complementary & Supplementary Angles

- |               |                |              |              |
|---------------|----------------|--------------|--------------|
| a $55^\circ$  | b $73^\circ$   | c $61^\circ$ | d $47^\circ$ |
| e $145^\circ$ | f $65^\circ$   | g $94^\circ$ | h $52^\circ$ |
| i $30^\circ$  | j $22.5^\circ$ |              |              |
- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| a $30^\circ$ | b $70^\circ$ | c $53^\circ$ | d $89^\circ$ |
|--------------|--------------|--------------|--------------|
- |               |              |               |                 |
|---------------|--------------|---------------|-----------------|
| a $150^\circ$ | b $70^\circ$ | c $103^\circ$ | d $170.5^\circ$ |
|---------------|--------------|---------------|-----------------|
- |              |              |
|--------------|--------------|
| a $45^\circ$ | b $90^\circ$ |
|--------------|--------------|
- |               |
|---------------|
| a $360^\circ$ |
|---------------|

### Exercise 2 - Angles Round a Point

- |               |               |              |               |
|---------------|---------------|--------------|---------------|
| a $124^\circ$ | b $145^\circ$ | c $85^\circ$ | d $135^\circ$ |
| e $130^\circ$ | f $90^\circ$  | g $90^\circ$ | h $60^\circ$  |
| i $89^\circ$  | j $171^\circ$ | k $41^\circ$ | l $12^\circ$  |
- |               |
|---------------|
| a $108^\circ$ |
|---------------|

- a  $45^\circ$
- a  $61^\circ$

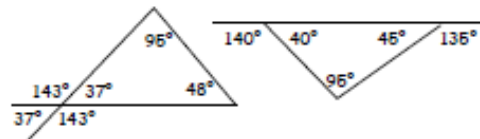
### Exercise 3 - Vertically Opposite Angles

- |               |                 |              |                |
|---------------|-----------------|--------------|----------------|
| a $140^\circ$ | b $87^\circ$    | c $94^\circ$ | d $166^\circ$  |
| e $91^\circ$  | f $161.5^\circ$ | g $90^\circ$ | h $35.5^\circ$ |

2. See drawings

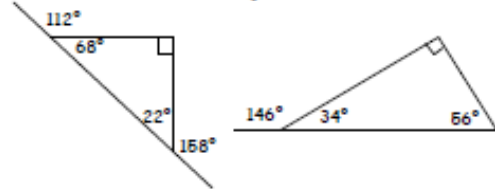
### Exercise 4 - Angles in a Triangle

- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| a $90^\circ$ | b $70^\circ$ | c $40^\circ$ | d $86^\circ$ |
| e $58^\circ$ | f $30^\circ$ | g $78^\circ$ | h $40^\circ$ |
- |                        |                                  |
|------------------------|----------------------------------|
| a $54^\circ, 72^\circ$ | b $47.5^\circ, 47.5^\circ$       |
| c $45^\circ, 45^\circ$ | d $60^\circ, 60^\circ, 60^\circ$ |
- |   |   |
|---|---|
| a | b |
|---|---|



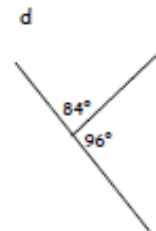
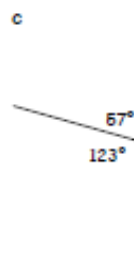
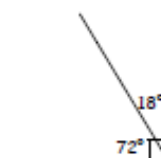
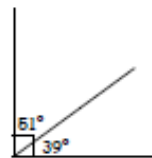
### Exercise 5 - Mixed Exercise

- |                         |              |               |              |
|-------------------------|--------------|---------------|--------------|
| a $51^\circ$            | b $43^\circ$ | c $152^\circ$ | d $49^\circ$ |
| e $39^\circ, 141^\circ$ | f $90^\circ$ | g $88^\circ$  | h $76^\circ$ |
| i                       | j            |               |              |



### Review - Revisit - Revise Exercise 3

- |              |              |
|--------------|--------------|
| a $25^\circ$ | b $65^\circ$ |
|--------------|--------------|
- |   |   |
|---|---|
| a | b |
|---|---|



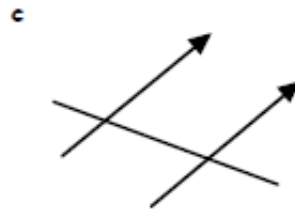
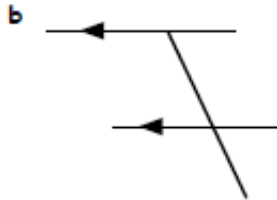
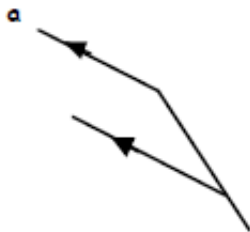
# More Angles

## Exercise 1

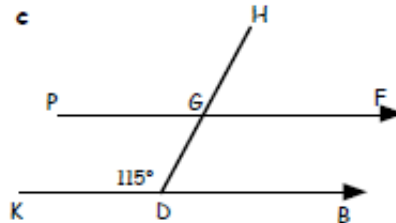
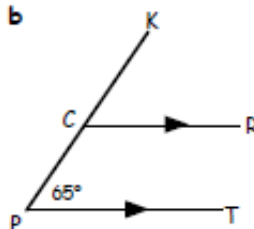
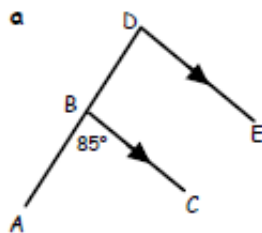
### Corresponding Angles



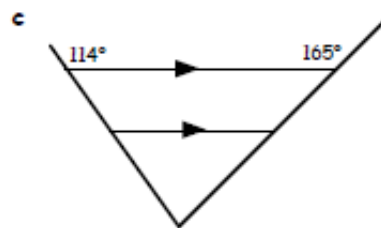
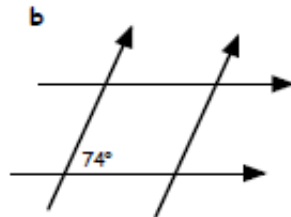
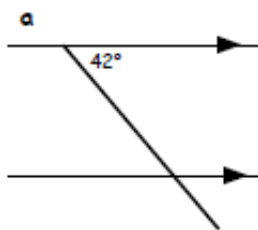
1. Copy and complete :- Corresponding (F) angles are e.....
2. Copy the diagrams and mark all the corresponding (F) angles with a \* :-



3. Write down the sizes of all the angles in the following diagrams :- ( $\angle ABC = 85^\circ$ ).



4. Sketch each of the following and fill in all the missing angles :-

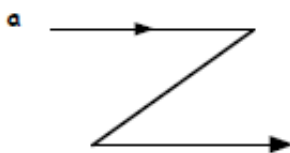


## Exercise 2

### Alternate Angles

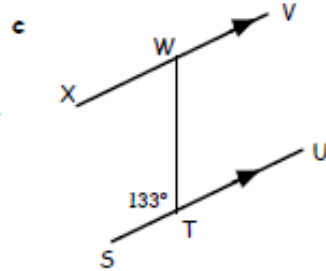
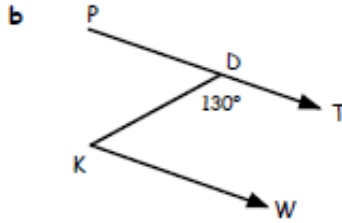
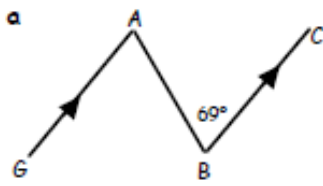


1. Copy and complete :- Alternate (Z) angles are e.....
2. Copy the diagrams and mark all the alternate (Z) angles with a \* :-

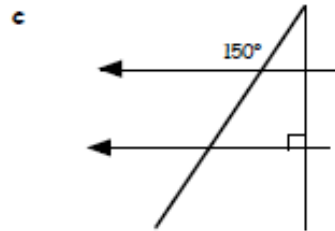
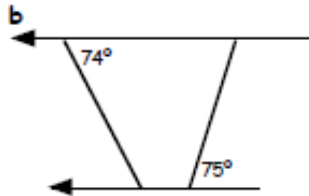
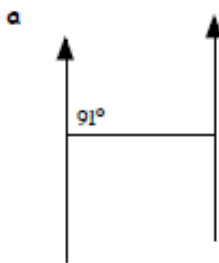


# More Angles

3. Write down all the sizes of the angles in the following diagrams :- (e.g.  $\angle ABC = 69^\circ$ ).



4. Sketch each of the following and fill in all the missing angles :-

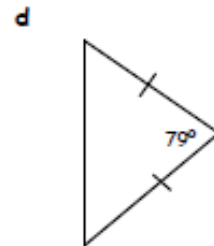
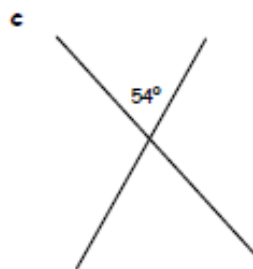
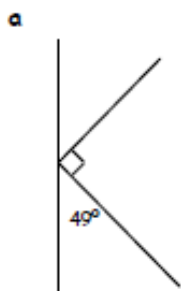


## Exercise 3 Mixed Exercise

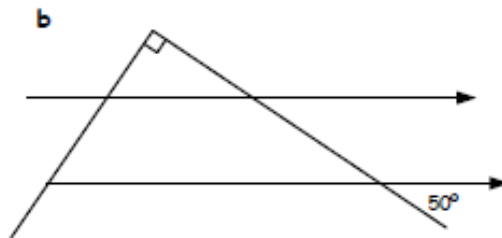
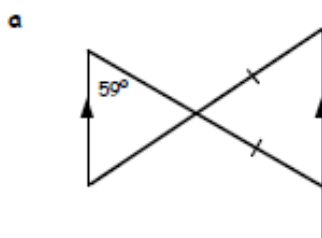


1. Make a neat rough sketch of each of the following diagrams.

Fill in all the missing angles.



2. Sketch each of the following and fill in all the missing angles :-



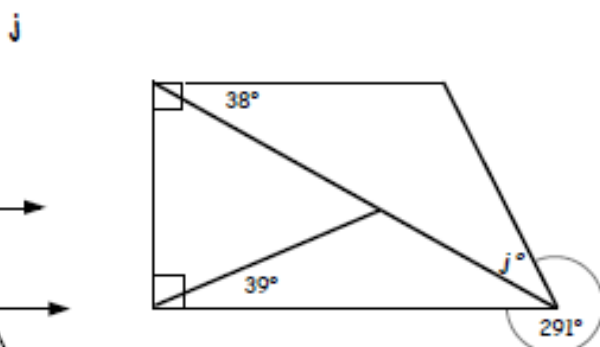
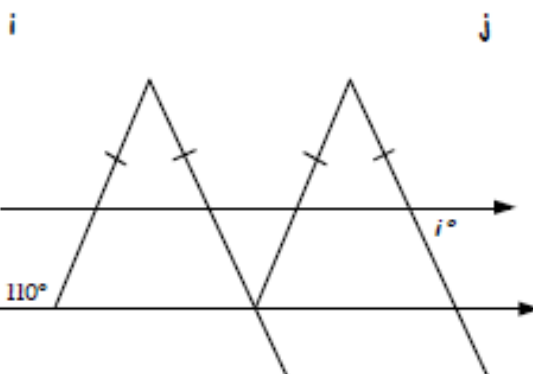
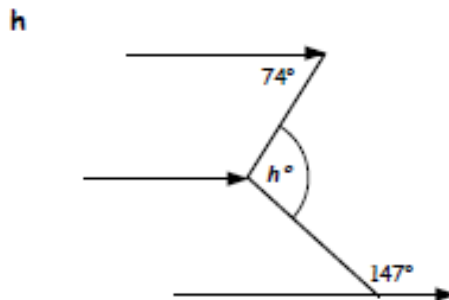
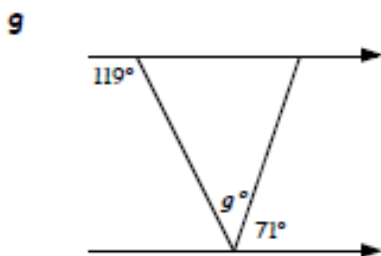
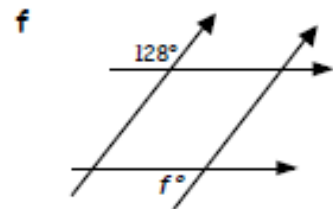
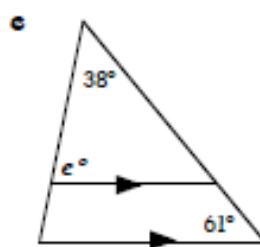
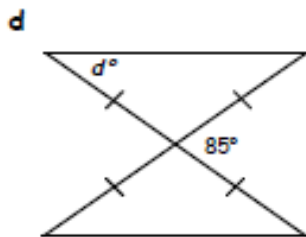
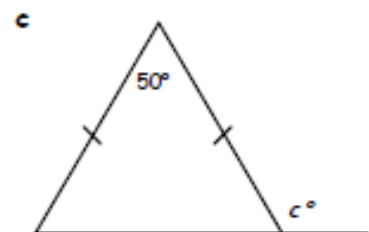
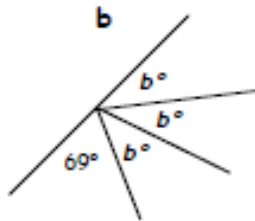
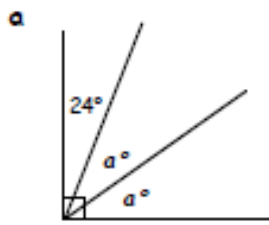


# More Angles

1. a What size of angle is complimentary to  $34^\circ$  ?

b Write down the supplement of  $85^\circ$ .

2. Make a neat sketch of each diagram and find the value of each letter :-

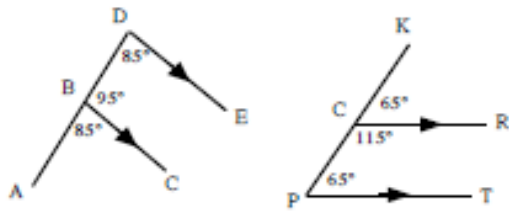


# Answers

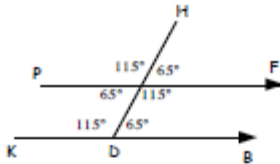
## Ch 6 Ex 1 Corresponding Angles

- equal
- Check diagrams
- a

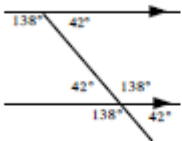
b



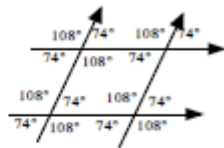
c



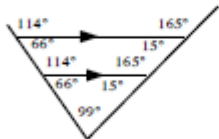
4. a



b



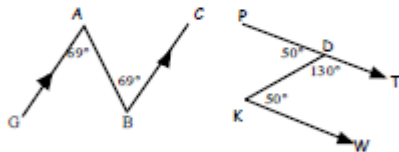
c



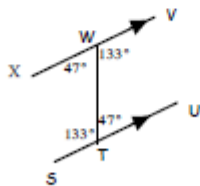
## Ch 6 Ex 2 Alternate Angles

- equal
- check diagrams
- a

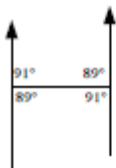
b



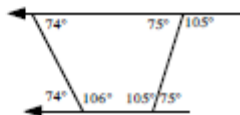
c



4. a

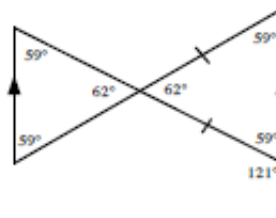


b

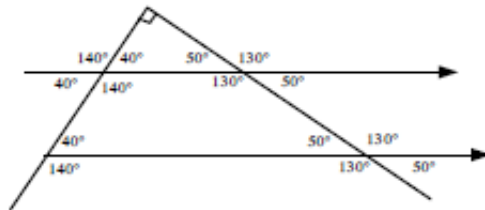


## Ch 6 Ex 3 Mixed Exercise

- a 41°      b 160°  
c 54°, 126°, 126°      d 50.5°, 50.5°
- a



b



## Ch 6 Revisit - Review - Revise 6

- a 56°      b 95°
- a 33°      b 37°      c 115°  
d 42.5°      e 81°      f 52°  
g 48°      h 107°      i 70°  
j 31°

## Ch 6 Cumulative Ex 2 (Chapters 1-6)

- a 9      b 169      c 81  
d 11      e 2
- small 90p per 50g, large 80p per 50g  
large tin is cheaper
- a 60      b 1
- 2, 3, 5, 7, 11, 13, 17, 19, 23, 29
- $2 \times 2 \times 2 \times 5 \times 7$
- a  $y = 4x - 1$       b  $y = x - 5$
- a 5      b 7      c 3  
d 1      e 2      f -5
- a  $x < 5$       b  $x < 4$       c  $x \geq 4$
- a  $x = 107^\circ$       b  $y = 122^\circ$
- 1 didli - 25000 splinkis

# Symmetry

## Exercise 1

### Line Symmetry

1. Make a neat tracing of each of the following shapes.

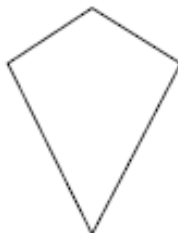
a



b



c



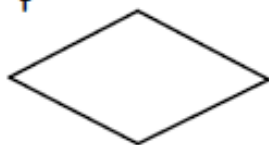
d



e



f



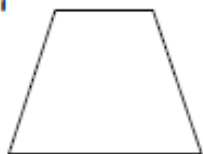
g



h



i



j



k



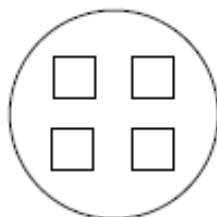
l



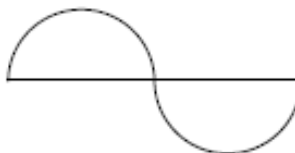
m



n



o



2. a For each shape you have traced (or copied) show all lines of symmetry.

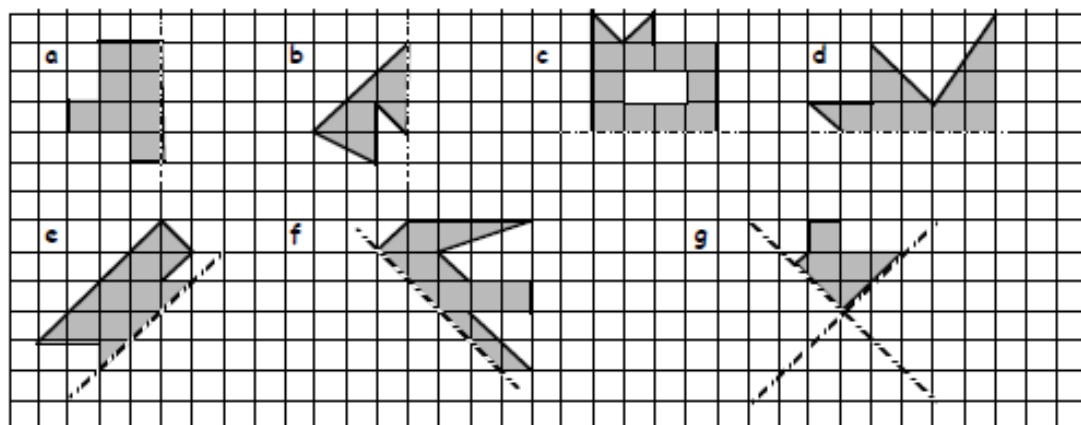
b Write down next to each shape how many lines of symmetry it has.

3. Make a list of those capital letters of the alphabet that have lines of symmetry.

A B C .....

# Symmetry

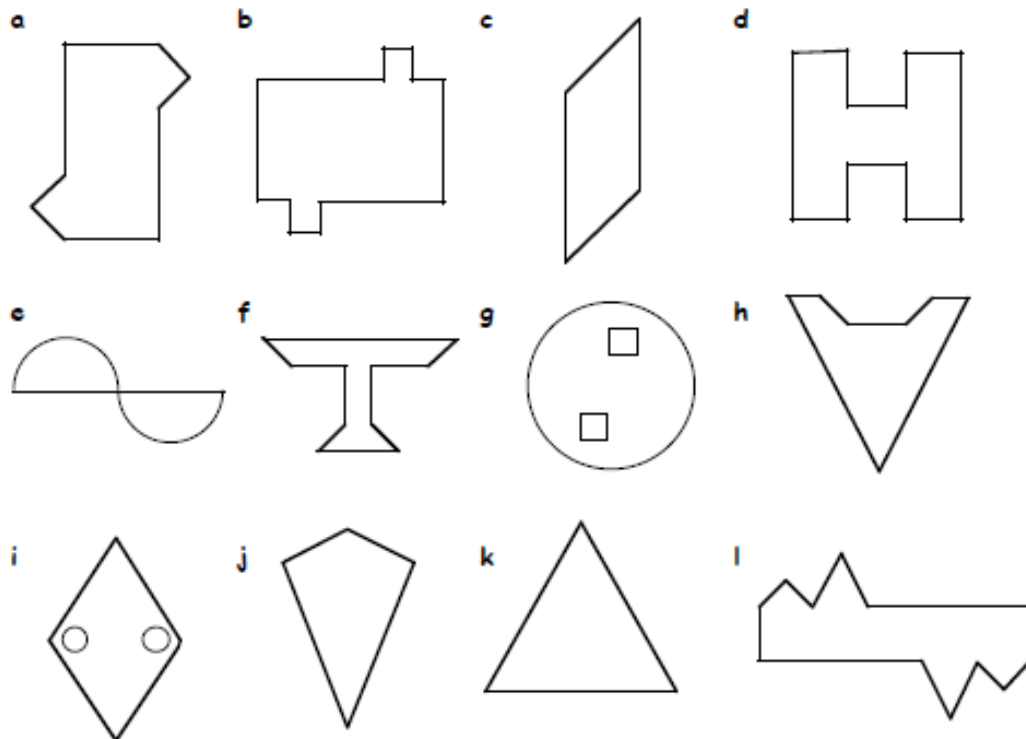
4. Copy each of the following shapes neatly and complete each one such that the dotted line is a line of symmetry each time.



## Exercise 2

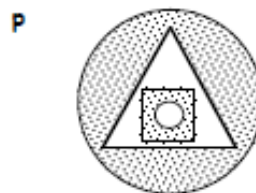
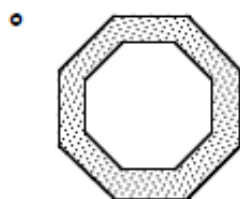
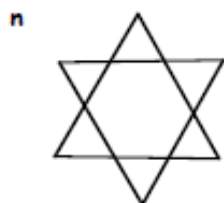
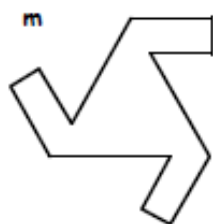
### Rotational Symmetry

1. Which of the following shapes have **half-turn** symmetry? (Answer yes or no).



continues over the page ...

# Symmetry



2. For each shape in Question 1, state the **order** of symmetry.
3. a Which seven capital letters of the alphabet have  $\frac{1}{2}$ -turn symmetry?

A B C .....

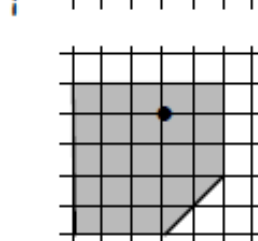
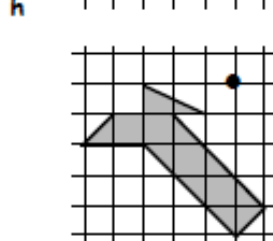
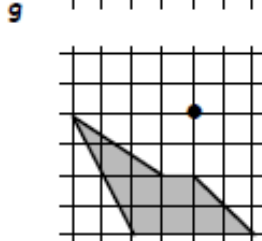
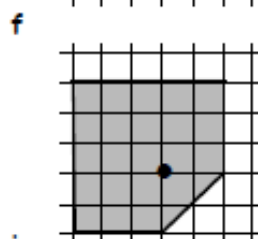
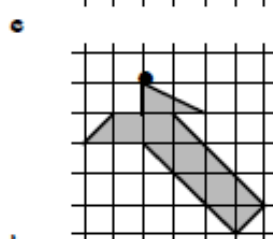
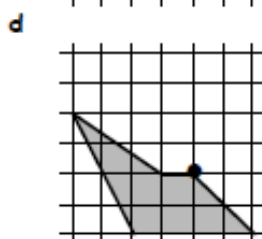
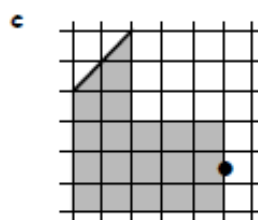
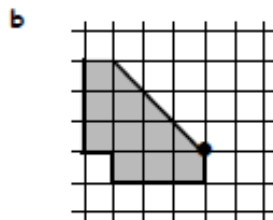
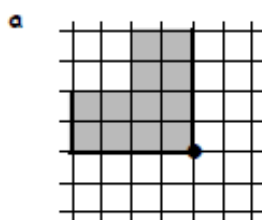
- b Of these seven letters, only three do **not** have a line of symmetry.  
Which three?

## Exercise 3

### Creating a Shape with Half-turn Symmetry

1. Make a copy of each of the following shapes.

Create a shape which has half turn symmetry by rotating each shape by  $180^\circ$  about the dot.

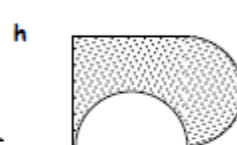
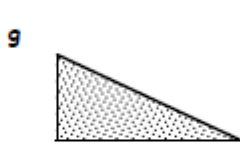
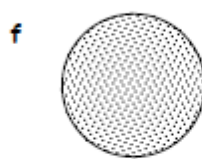
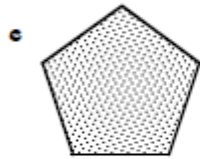
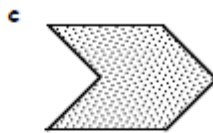
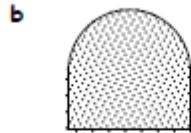
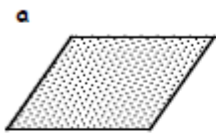


# Symmetry

## Exercise 4

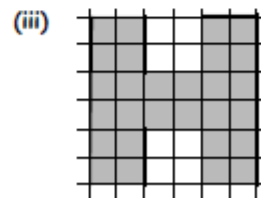
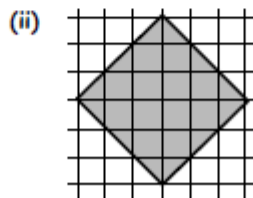
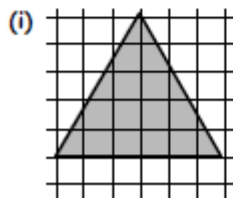
### Translation (Slide) Symmetry

1. Which of the following shapes would not "tile the plane".



2. a Draw each shape shown below and shade it in.

b Tile the plane using 6-8 congruent tiles

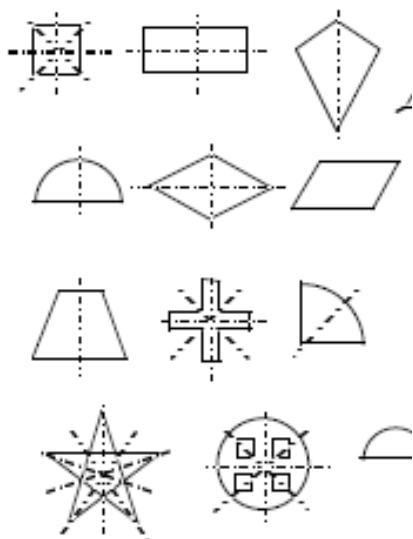


# Answers

1. b d f  
2. (i)

## Ch 11 Ex 1 Line Symmetry

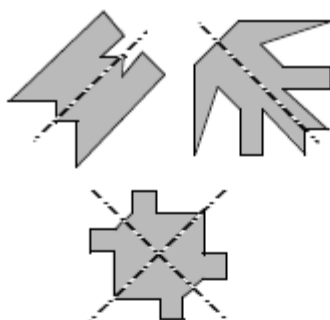
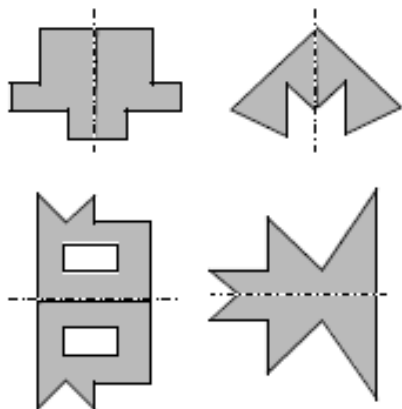
1.



2. a 4      b 2      c 1  
d 3      e 1      f 2  
g 0      h 6      i 1  
j 4      k 1      l 1  
m 5      n 4      o 0

3. A, B, C, D, E, H, I, K, M, O, (Q), T, U, V, Y

4.

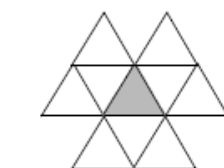
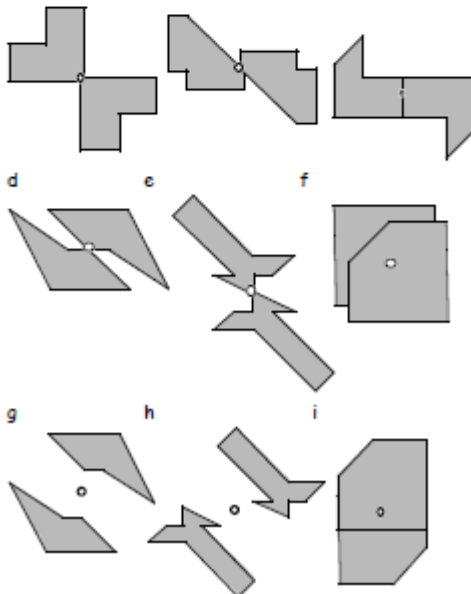


## Ch 11 Ex 2 Rotational Symmetry

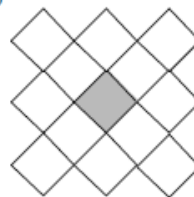
1. a yes      b yes      c yes  
d yes      e yes      f no  
g yes      h no      i yes  
j no      k no      l yes  
m no      n yes      o yes  
p no
2. a  $1/2, 2$       b  $1/2, 2$       c  $1/2, 2$   
d  $1/2, 2$       e  $1/2, 2$       f --  
g  $1/2, 2$       h --      i  $1/2, 2$   
j --      k  $1/3, 3$       l  $1/2, 2$   
m  $1/3, 3$       n  $1/6, 6$       o  $1/8, 8$
3. a H, I, N, O, S, X, Z      b N, S, Z

## Ch 11 Ex 3 Half-turn Symmetry

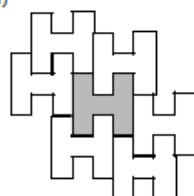
1. a      b      c



(ii)



(iii)

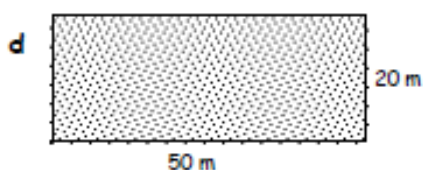
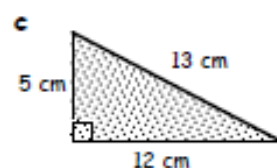
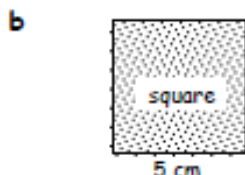
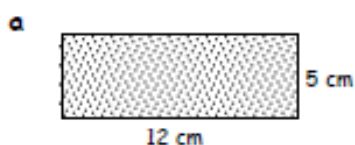


# Area/Perimeter

## Exercise 1 Perimeter & Area

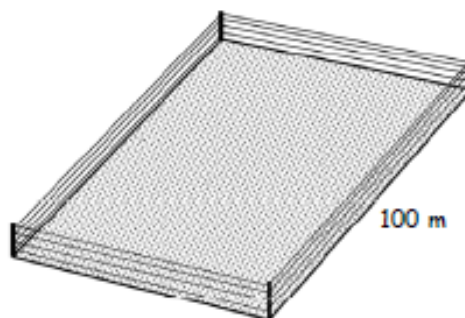


1. Calculate :- (i) the perimeter (ii) the area of each shape below :-



2. Four strips of electrical wire fence surround a rectangular field with area 8000 square metres.

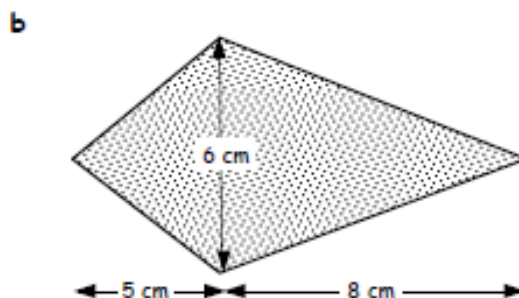
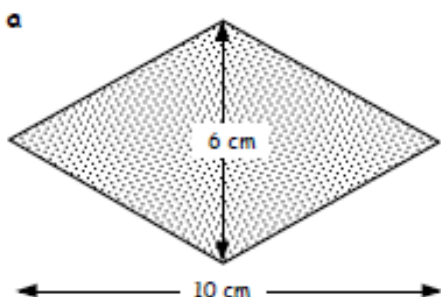
- Find the width of the field given that the length is 100 metres.
- What is the total length of wire needed ?
- The wire costs 18p per metre.  
How much will the wire cost in total ?



## Exercise 2 Area of a Rhombus & Kite

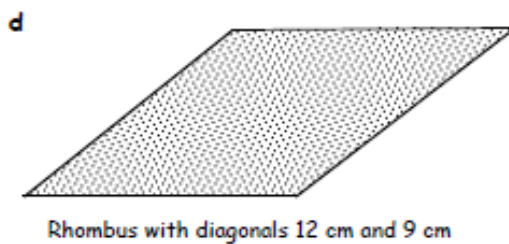
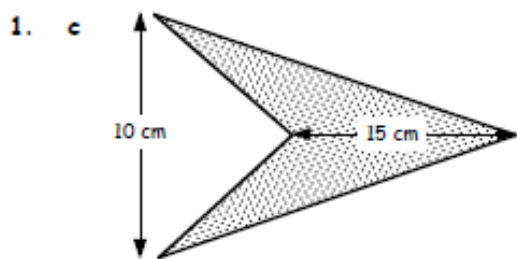


1. Using  $A = \frac{1}{2}(D \times d)$ , calculate the area of each rhombus and kite below :-





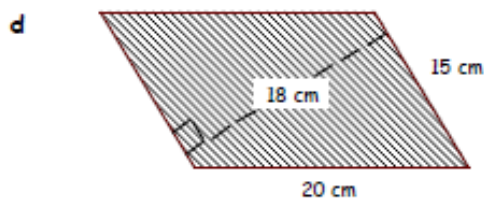
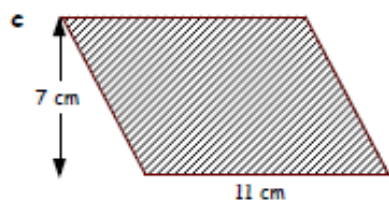
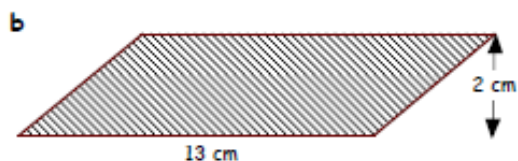
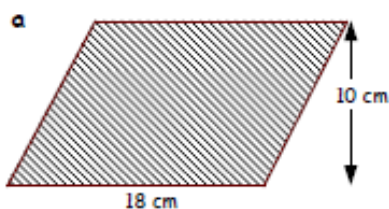
# Area/Perimeter



## Exercise 3 Area of a Parallelogram



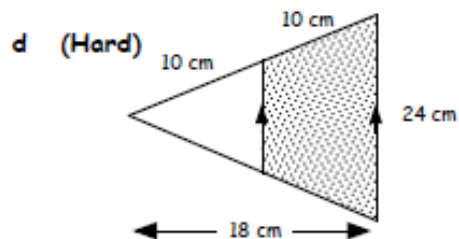
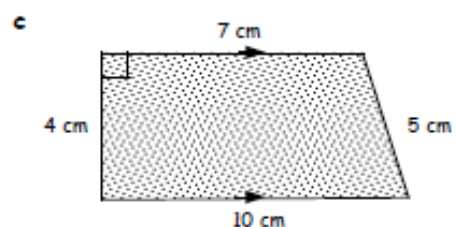
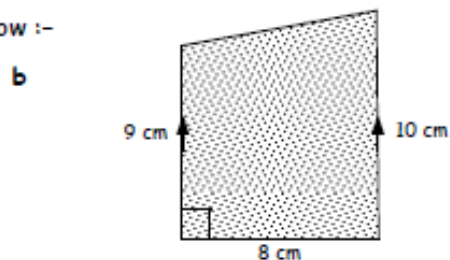
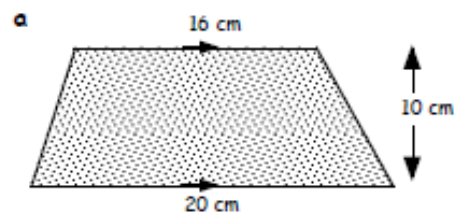
1. Using  $A = B \times H$ , calculate the area of each parallelogram below :-



## Exercise 4 Area of a Trapezium



1. Calculate the area of each trapezium below :-



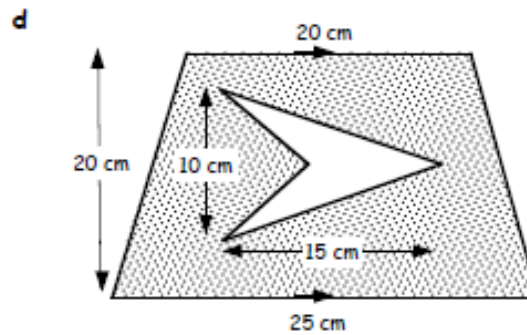
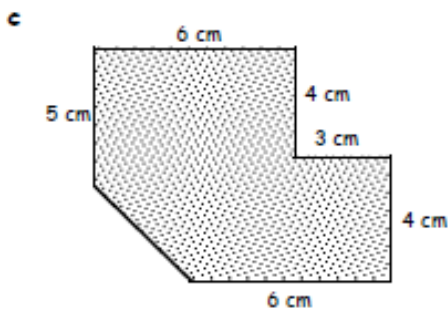
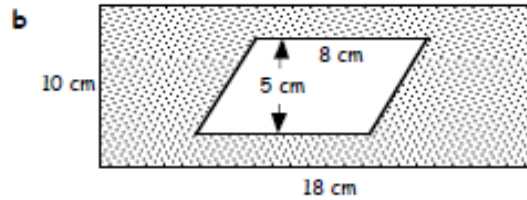
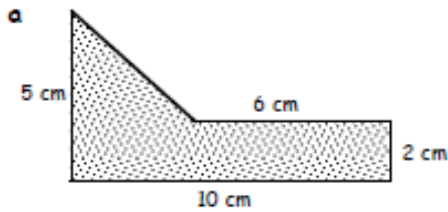
# Area/Perimeter

## Exercise 5

### Composite Areas



1. Calculate the **area** of each composite shape below :-



# Answers

## Exercise 1 - Perimeter & Area

- (i) 34 cm (ii)  $60 \text{ cm}^2$
  - (i) 20 cm (ii)  $25 \text{ cm}^2$
  - (i) 30 cm (ii)  $30 \text{ cm}^2$
  - (i) 140 m (ii)  $1000 \text{ m}^2$
  - (i) 440 cm (ii)  $4000 \text{ cm}^2$
- a 80 m b 1440 m c £259.20

## Exercise 2 - Area of a Rhombus & Kite

- a  $30 \text{ cm}^2$  b  $39 \text{ cm}^2$  c  $75 \text{ cm}^2$  d  $54 \text{ cm}^2$

## Exercise 3 - Area of a Parallelogram

- a  $180 \text{ cm}^2$  b  $26 \text{ cm}^2$  c  $77 \text{ cm}^2$  d  $270 \text{ cm}^2$

## Exercise 4 - Area of a Trapezium

- a  $180 \text{ cm}^2$  b  $76 \text{ cm}^2$  c  $34 \text{ cm}^2$  d  $162 \text{ cm}^2$

## Exercise 5 - Composite Area

- a  $26 \text{ cm}^2$  b  $140 \text{ cm}^2$  c  $55.5 \text{ cm}^2$  d  $375 \text{ cm}^2$

# Better Buys

## Exercise 2

### Best Buys - Money Management

1. A tin of dog food is offered in two different sizes.

- The small tin costs £3.45 for 600 grams.
- The large tin costs £6 for one kilogram.

Which one is the better deal? Explain.



2. Which is the better deal for each of the following and explain your answers?

- a A box of fudge costs £3.99 for a 475 gram box or £5.20 for a 650 gram box.
- b Tennis balls - box of 9 for £19.26 or box of 12 for £25.68.

3. Cartons of apple juice are sold in different sizes.

Which is the best deal? Explain.

450 ml costs	-	81p
1 litres costs	-	£1.60
2.5 litres costs	-	£3.50



# Answers

## Ch 2 Ex 2 Best Buys - Money Management

1. Small 57.5p per 100g Large 60p per 100g  
Small tin better value
2. a small 21p per 25g, large 20p per 25g.  
Larger is cheaper.  
b 9 box €2.14 each, 12 box €2.14. Same price.
3. 450 ml 9p per 50 ml, 1l 8p per 50 ml,  
2.5 l 7p per 50 ml. Largest is best