Cumbernauld Academy

Mathematics Department

1st/2nd Level

Block 2 - homework booklet

Name .....

Homework Sheets

Time

No. 6a

name .....

date due back .....

signed ..... score .....

1. Write in the other days of the week.

Monday [ ], [ ], [ ], [ ], [ ], [ ]

2. Write in all the other months of the year.

January, [F...] [ ] [ ] [ ] [ ]

July, [ ] [ ] [ ] [ ] [ ]

3. Write the dates using numbers :– 8th March 1996 is 08 / 03 / 96 (day month year)

(a) 14th March 1992 is [ ] / [ ] / [ ]

(b) 26th November 1986 is [ ] / [ ] / [ ]

(c) 4th May 1971 is [ ] / [ ] / [ ]

(d) 3rd August 1999 is [ ] / [ ] / [ ]

(e) Today's date is [ ] / [ ] / [ ]

4. Write these dates in full :– 04/05/90 is 4th May 1990.

(a) 08/05/92 is [ ]

(b) 10/10/99 is [ ]

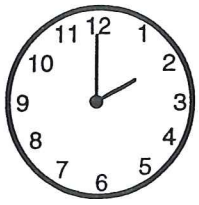
(c) Today's date is [ ]

(d) 01/01/01 is [ ]

(e) 18/02/03 is [ ]

5. Write down in words the times shown on the clocks.

Examples

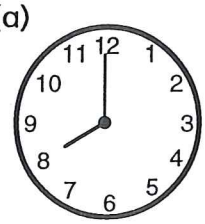


Two o'clock

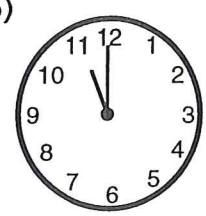
6:30

Half past six

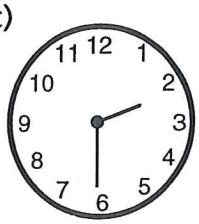
(a)



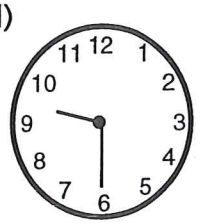
(b)



(c)



(d)



(e) 7:00

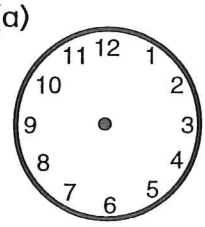
(f) 4:30

(g) 1:30

(h) 11:00

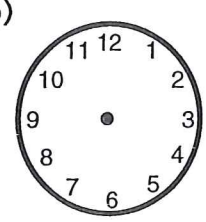
6. Put a long minute hand and a short hour hand on each clock to show the times. (Remember :- At half past 4, the hour hand will not point exactly at 4).

(a)



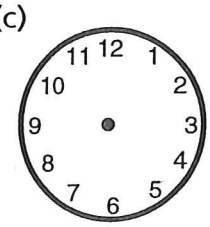
Seven o'clock

(b)



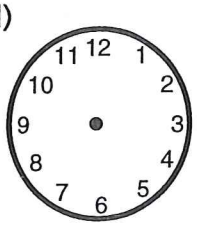
One o'clock

(c)



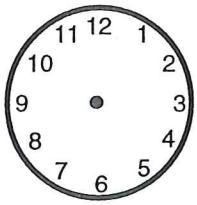
Half past 4

(d)



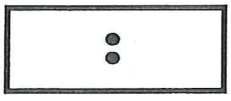
Half past ten

(e)



Half past 12

(f)

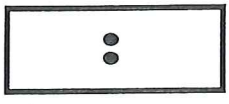


Five o'clock

(g)

Half past 4

(h)



Half past 11

Homework Sheets

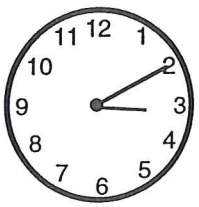
Time No. 6b

name .....

date due back .....

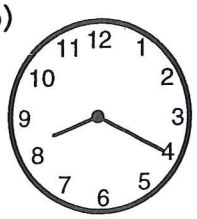
signed ..... score .....

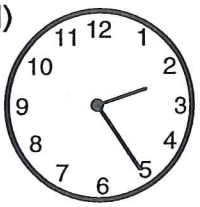
1. Write down in words the times shown on the clocks.

(a) 

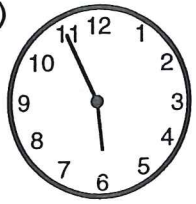
Ten past three

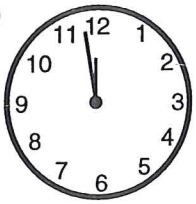
(b) 

(c) 

(d) 

(e) 

(f) 

(g) 

(h) 8:40

(i) 9:05

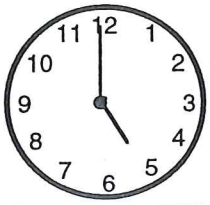
(j) 1:11

(k) 10:56

2. Write down the times and put in a.m. (before noon) or p.m. (afternoon).

3:00

7:45



(a) Milkman leaves milk. am or pm

(b) Football match kick-off. am or pm

(c) Breakfast. am or pm

(d) Dinner time. am or pm

3. Written below is part of a T.V. programme guide.

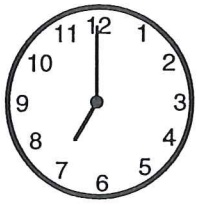
BBC 1

7·00	Wildlife : Tigers
7·30	Only Fools and Horses
8·00	Film : Blade
10·00	Night News
10·20	Film : Vampire
11·55	Sports Extra

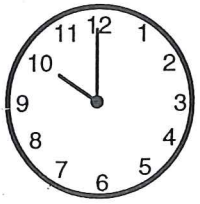
BBC 2

6·45	Rugby Highlights
7·15	Evening News
7·45	Film : Police Story
10·00	Film : Horror House
11·45	Music Hour
12·45	Night Talk

Answer the following questions :–



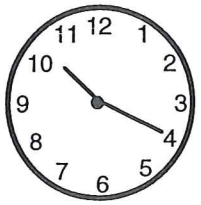
(a) What programme starts at this time ?



(b) What film starts at this time ?

(c) How long does this film last ?

☐ hours ☐ minutes



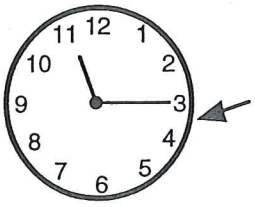
(d) What film starts at this time ?

(e) How long does this film last ?

☐ hours ☐ minutes

(f) Are the T.V. times above a.m. or p.m. ?

(g) Explain your answer.



This is the time now.

(h) How long do I have to wait to see "Sports Extra" ?

☐ minutes

Homework Sheets

Time No. 14b

name .....
date due back .....
signed ..... score .....

1. Here is part of a night-time T.V. guide.

CHANNEL 6		
6·00	1800	Film : North Park
8·00		Evening News
8·35		Westenders
9·15		Film : Scream 5
10·10		Internet Special

CHANNEL 7		
6·15		News
6·45		The Sampsons
7·10		Film : Crocodile Dundee
10·45		Film : Jaws
12·20		Sports Roundup

Write in all the 24 hour times in the empty boxes above.

2. (a) The film "North Park" is on Channel ☐ .

It lasts for ☐ hrs .

(b) The film "Crocodile Dundee" is on Channel ☐ .

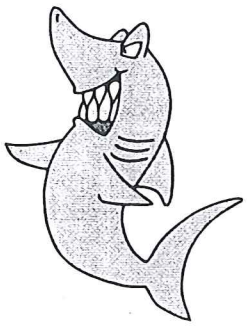
It lasts for ☐ hrs ☐ mins .

(c) You switch on your T.V. at 2050 hours.

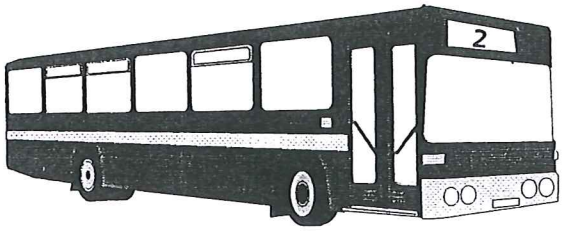
You will have to wait ☐ minutes to watch "Scream 5".

(d) The Channel 7 News is extended and all the programmes will run 20 minutes late.

The film "Jaws" will now start at ☐ .



3. Two buses leave from Glasgow for Aberdeen.



Bus 1 leaves in the morning at 0700.
Bus 2 leaves in the afternoon at 1410.

Here is a part of the timetable.

	Bus 1	Bus 2
Glasgow	0700	1410
Edinburgh	0810	
St Andrews	0914 (arrive)	
	0939 (depart)	
Aberdeen	1042	

(a) From Glasgow to Edinburgh, bus 1 took ☐ hr ☐ mins .

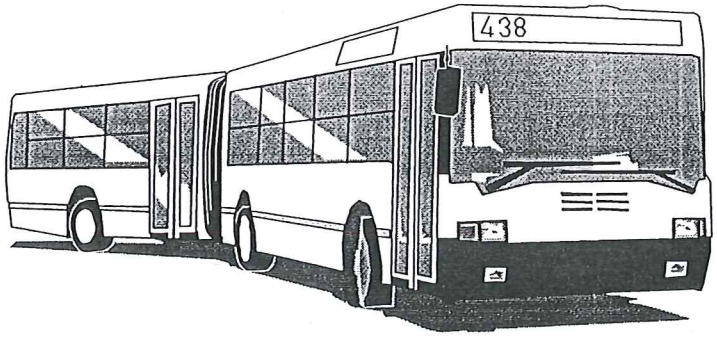
(b) From Edinburgh to St Andrews, bus 1 took ☐ hr ☐ mins .

(c) Bus 1 stopped at St Andrews for ☐ mins .

(d) Bus 1 took ☐ hr ☐ mins from St Andrews to Aberdeen.

(e) Bus 1 took a total of ☐ hr ☐ mins from Glasgow to Aberdeen.

(f) Fill in the times for Bus 2 in the table above, using the same times taken by Bus 1.
(hint: Bus 1 took 1 hour 10 minutes from Glasgow to Edinburgh, so Bus 2 will take the same length of time as it travels at the same speed as Bus 1)

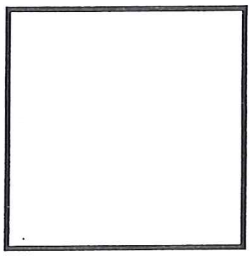


Homework Sheets
Fractions No. 15a

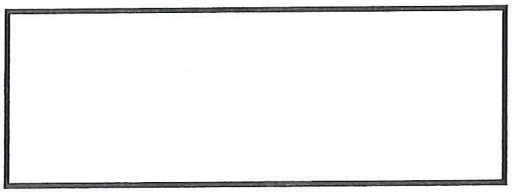
name .....
date due back .....
signed ..... score .....

1. Draw a line through each of the following shapes to cut them in half.
Colour in one half of each shape.

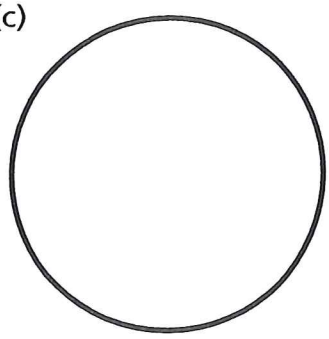
(a)



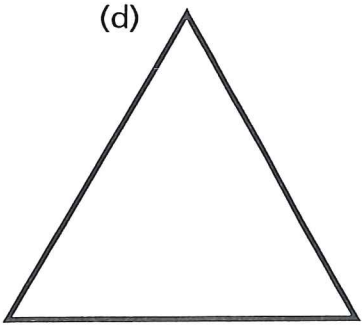
(b)



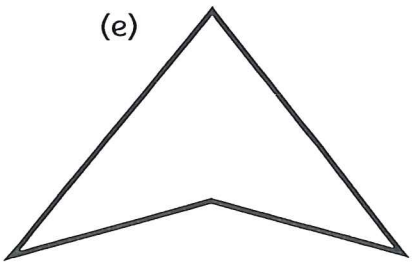
(c)



(d)

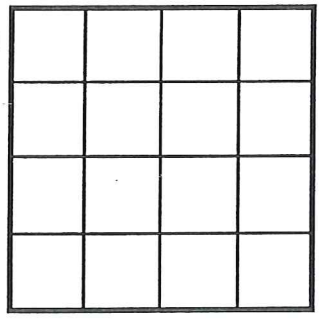


(e)



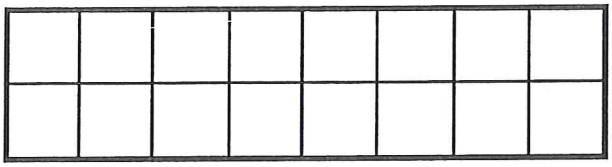
2. Draw a line through each of the following shapes to cut them exactly in half.

(a)



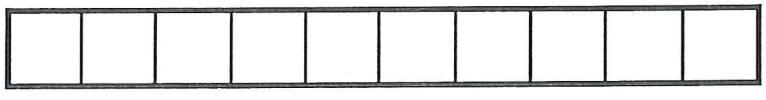
There are ☐ pieces in each half.

(b)



There are ☐ pieces in each half.

(c)

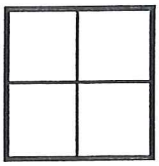


There are ☐ pieces in each half.

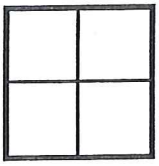
3. Colour or shade in the fraction shown for each shape.

(a) 

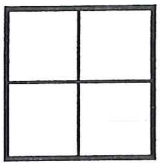
$\frac{1}{2}$

(b) 

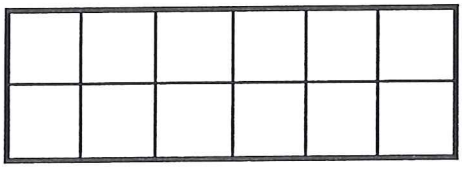
$\frac{1}{4}$

(c) 

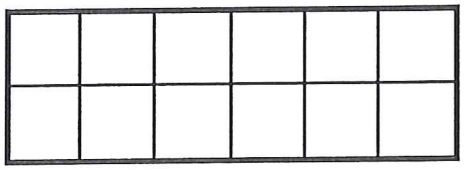
$\frac{2}{4}$

(d) 

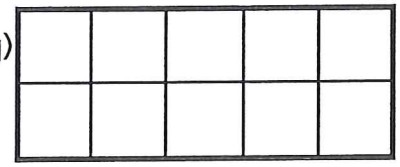
$\frac{3}{4}$

(e) 

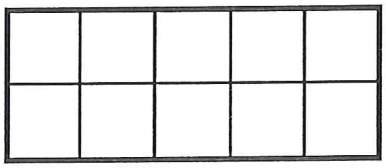
$\frac{1}{4}$

(f) 

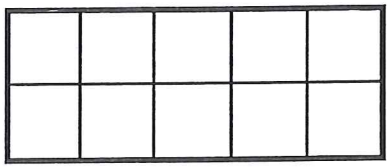
$\frac{3}{4}$

(g) 

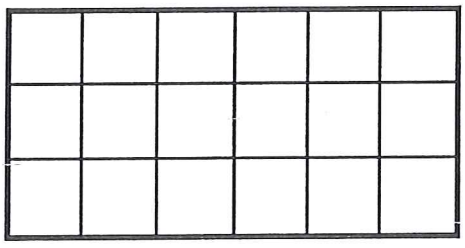
$\frac{1}{10}$

(h) 

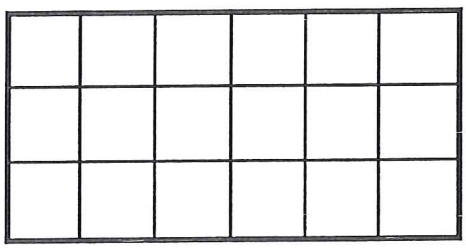
$\frac{1}{5}$

(i) 

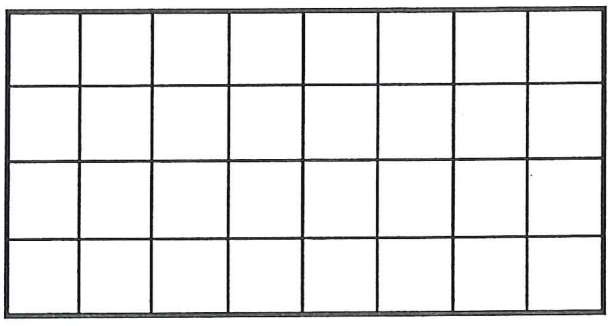
$\frac{4}{5}$

(j) 

$\frac{1}{6}$

(k) 

$\frac{1}{9}$

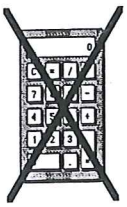
(l) 

$\frac{3}{4}$

** (difficult)

Homework Sheets
Fractions
No. 15b

name .....
date due back .....
signed ..... score .....



1. Complete the following :-

(a) $\frac{1}{2}$ of 10 = ☐

(b) $\frac{1}{2}$ of 40 = ☐

(c) $\frac{1}{2}$ of 50 = ☐

(d) $\frac{1}{4}$ of 20 = ☐

(e) $\frac{1}{4}$ of 12 = ☐

(f) $\frac{1}{4}$ of 32 = ☐

(g) $\frac{1}{4}$ of 4 = ☐

(h) $\frac{1}{4}$ of 60 = ☐

(i) $\frac{1}{2}$ of 240 = ☐

(j) $\frac{1}{4}$ of 240 = ☐

(k) $\frac{1}{4}$ of 84 = ☐

(l) $\frac{1}{5}$ of 20 = ☐

(m) $\frac{1}{5}$ of 35 = ☐

(n) $\frac{1}{6}$ of 24 = ☐

(o) $\frac{1}{8}$ of 24 = ☐

(p) $\frac{1}{7}$ of 21 = ☐

(q) $\frac{1}{9}$ of 36 = ☐

(r) $\frac{1}{10}$ of 60 = ☐

(s) $\frac{1}{8}$ of 88 = ☐

(t) $\frac{1}{9}$ of 90 = ☐

2. (a) Ahmed has 80p.
He gives $\frac{1}{2}$ of his money to Anne. Anne has ☐ p.

(b) Peter has 21 sweets.
He gives $\frac{1}{3}$ of his sweets to Paul. Paul has ☐ sweets .

(c) Jenny has £20.
She gives $\frac{1}{4}$ of her money to Mary. Mary has £ ☐ .

3. Complete the following :-

(a) $\frac{1}{2}$ of 12 = $\square$

(b) $\frac{1}{\square}$ of 18 = 9

(c) $\frac{1}{\square}$ of 16 = 8

(d) $\frac{1}{\square}$ of 12 = 3

(e) $\frac{1}{\square}$ of 16 = 4

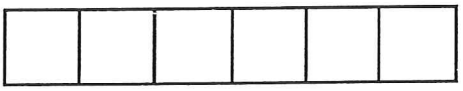
(f) $\frac{1}{\square}$ of 18 = 6

(g) $\frac{1}{\square}$ of 12 = 4

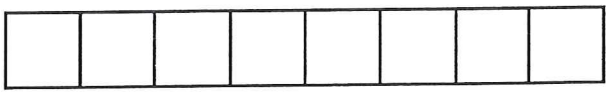
(h) $\frac{1}{\square}$ of 15 = 3

4. Colour enough squares to show :-

$\frac{3}{6} = \frac{1}{2}$

(a) 

$\frac{2}{8} = \frac{1}{4}$

(b) 

5. Fill in the missing parts of the following fractions :-

(a) $\frac{1}{2} = \frac{\square}{8}$

(b) $\frac{1}{3} = \frac{\square}{6}$

(c) $\frac{1}{4} = \frac{\square}{8}$

(d) $\frac{1}{4} = \frac{\square}{12}$

(e) $\frac{1}{2} = \frac{\square}{20}$

(f) $\frac{1}{3} = \frac{\square}{15}$

(g) $\frac{1}{6} = \frac{\square}{12}$

(h) $\frac{1}{2} = \frac{5}{\square}$

(i) $\frac{1}{2} = \frac{12}{\square}$

(j) $\frac{1}{4} = \frac{4}{\square}$

Homework Sheets

Fractions Decimals Percentages

No. 5a

name .....
date due back .....
signed ..... score .....

1. A bar of chocolate has 9 pieces.

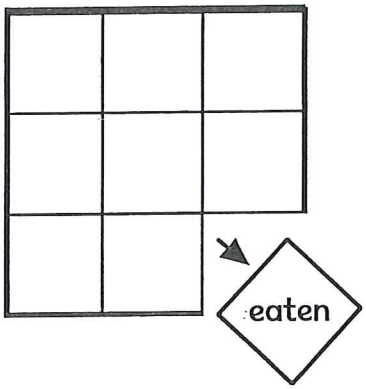
   One piece is broken off and eaten.

   (a) The fraction of chocolate eaten is ....

   $\frac{\square}{\square}$

   (b) The fraction of chocolate left is ....

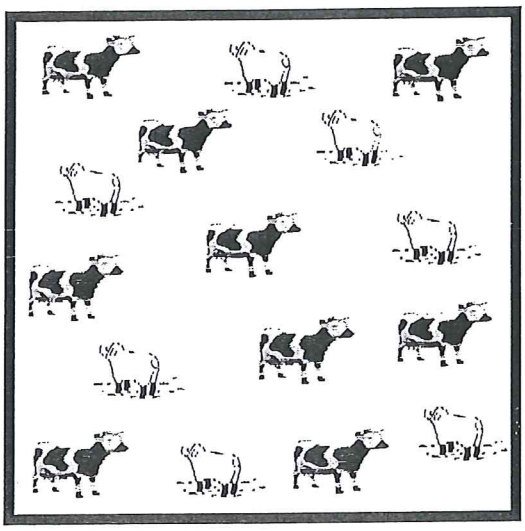
   $\frac{\square}{\square}$



2. There are 16 animals in a field.
   9 of the animals are cows.

   (a) The fraction of cows in the field is .... $\frac{\square}{\square}$

   (b) The fraction which are <u>not</u> cows is .... $\frac{\square}{\square}$

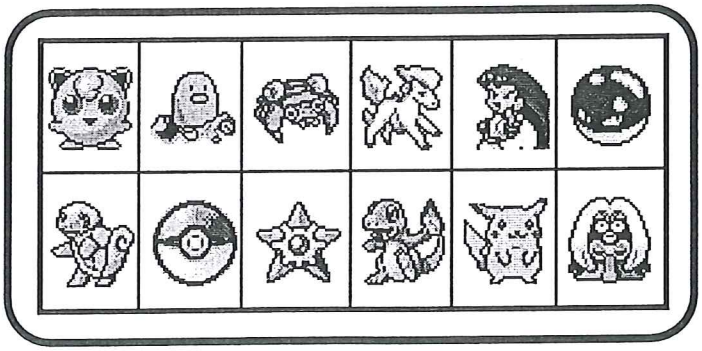


3. There are 12 cards to collect in a Pokemon set.
   Eddie has a full set of cards.

   Eddie gave $\frac{1}{3}$ of the cards to Ben.

   (a) How many cards did Eddie give to Ben ? ☐

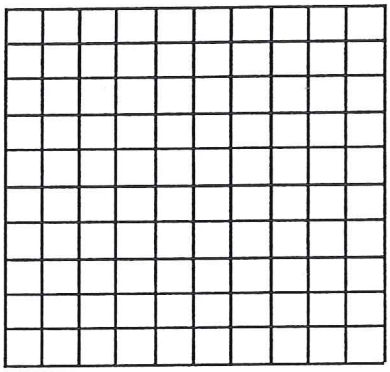
   (b) How many cards did Eddie keep ? ☐



   (c) What <u>fraction</u> of the whole set did Eddie keep ? $\frac{\square}{\square}$

4. Each square below has 100 smaller squares.

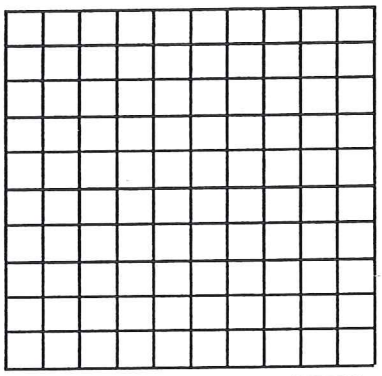
(a) Shade 30 squares



Fraction shaded is $\frac{30}{100}$

we call this 30%

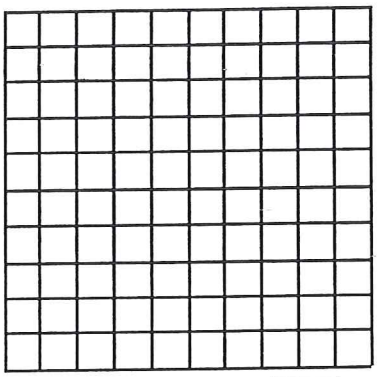
(b) Shade 15 squares



Fraction shaded is $\frac{\square}{100}$

we call this $\square$ %

(c) Shade 68 squares



Fraction shaded is $\frac{\square}{100}$

we call this $\square$ %

REMEMBER :- $\frac{\text{Any Number}}{100}$ = (number)% example $\frac{52}{100}$ = 52%

5. Change these fractions into percentages :-

(a) $\frac{25}{100}$ = $\square$ %

(b) $\frac{80}{100}$ = $\square$ %

(c) $\frac{14}{100}$ = $\square$ %

(d) $\frac{8}{100}$ = $\square$ %

(e) $\frac{99}{100}$ = $\square$ %

(f) $\frac{18 \cdot 5}{100}$ = $\square$ %

6. In the boxes below, 5 well known fractions have been changed into percentages :-

$\frac{1}{2} = 50\%$	$\frac{1}{4} = 25\%$	$\frac{3}{4} = 75\%$	$\frac{1}{10} = 10\%$	$\frac{1}{5} = 20\%$

You MUST learn these !! Your teacher will ask you to repeat them, next period.
To help you - follow these instructions very carefully .....

- Find a piece of scrap paper and write out all the boxes.
- Read out loud, (3 times) what you have written.
- Close your eyes and try to say them out loud again.
- Get someone to ask you them. Ask them to mix the boxes up.
- If you need to, start again at the first point !

Homework Sheets

Fractions Decimals Percentages

No. 5b

name .....

date due back .....

signed ..... score .....

REMEMBER :-

$\frac{1}{2} = 50\%$	$\frac{1}{4} = 25\%$	$\frac{3}{4} = 75\%$	$\frac{1}{10} = 10\%$	$\frac{1}{5} = 20\%$

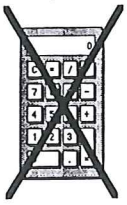
(You should know these well by now,... so only use them to CHECK your working)

Example

50% of 12 sweets

$= \frac{1}{2}$ of 12

= 6 sweets



1. Work out these in the same way :-

(a) 50% of 20 sweets

= $\frac{1}{2}$ of 20

= ☐ sweets

(b) 50% of 46 pence

= ☐ of ☐

= ☐ pence

(c) 50% of 90 kg

=

=

(d) 25% of 12 sweets

=

=

(e) 25% of 40 pence

=

=

(f) 10% of 80 kg

=

=

(g) 20% of £15

=

=

(h) 75% of £20 *(difficult)

=

=

REMEMBER :- $\frac{1}{2}$ means [1] [÷] [2] [=] 0·5
(on the calculator)

2. Change the following fractions into decimals :-

(a) $\frac{1}{4}$ = [1 ÷ 4 =] (b) $\frac{1}{5}$ = [1 ÷ =] (c) $\frac{3}{4}$ = [3 ÷]

(d) $\frac{1}{10}$ = [ ] (e) $\frac{8}{50}$ = [ ] (f) $\frac{21}{24}$ = [ ]

REMEMBER :- 35% = $\frac{35}{100}$. So, 35% = 35 ÷ 100 = 0·35
(on the calculator)

3. Change these percentages into decimals :-

(a) 60% = [60 ÷ 100 = 0·] (b) 81% = [81 ÷ =] (c) 12% = [ ]

(d) 99% = [ ] (e) 1% = [ ] (f) 8·5% = [ ]

REMEMBER :- $\frac{3}{5}$ of £20 = [3] [÷] [5] [x] [20] [=] £12
(on the calculator)

4. Calculate the following :-

(a) $\frac{3}{5}$ of £80 = [3 ÷ x 80] = [£]

(b) $\frac{5}{8}$ of £160 = [ ] = [£]

5. Change this decimal into a PERCENTAGE, ...then into a FRACTION :-

0·45 = [%] = [—]

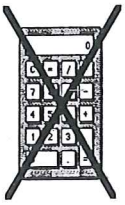
Homework Sheets

Symmetry No.10b

name .....

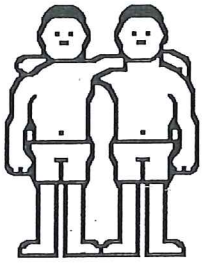
date due back .....

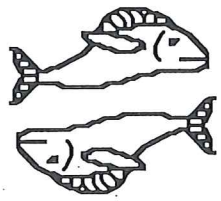
signed ..... score .....

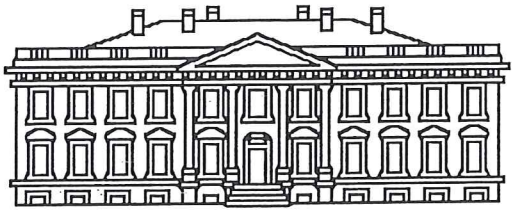


Some of the objects below have line symmetry.

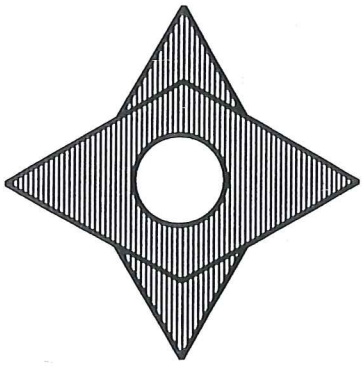
1. Draw all the lines of symmetry in colour or as dotted lines **(use a ruler)**.



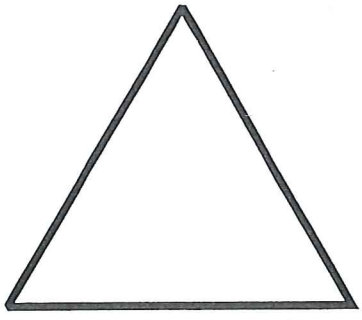


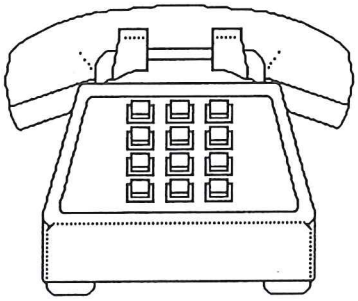


E



Z





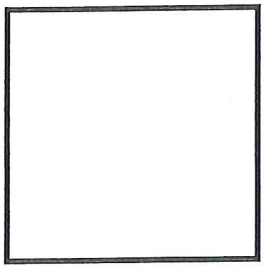
Some shapes have <u>more than one</u> line of symmetry.

2. Draw any lines of symmetry in each of the shapes below :-

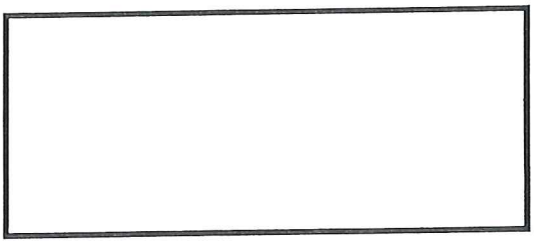
Remember – use a dotted line - - - - - - - - .

use a ruler !

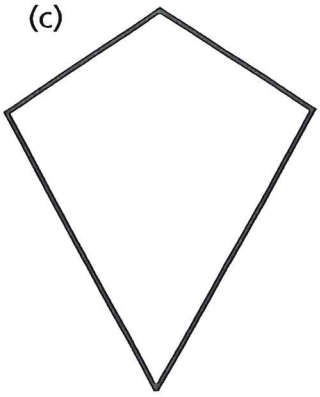
(a)



(b)

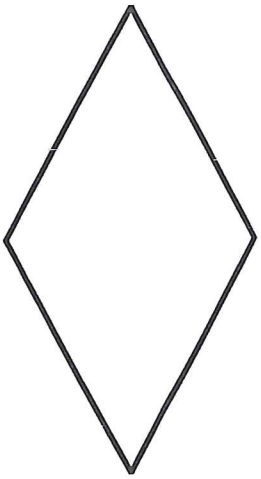


(c)

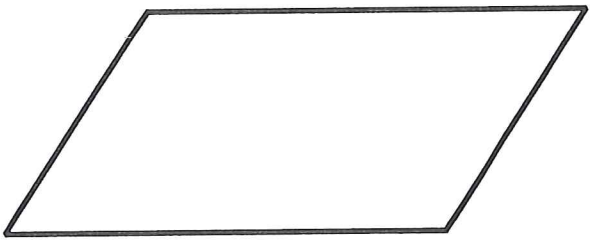


(d)

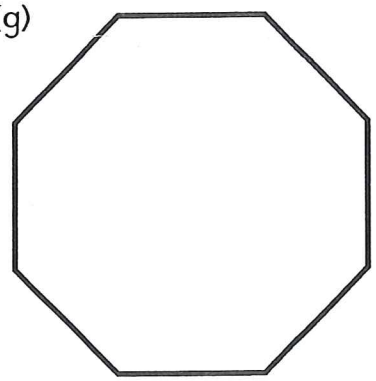
(e)



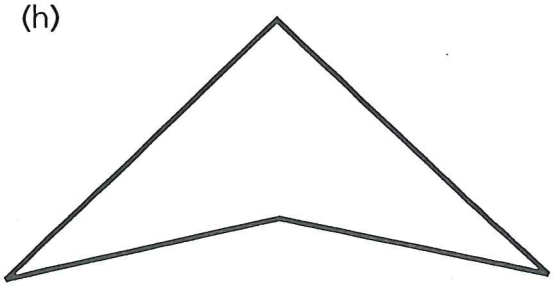
(f)



(g)



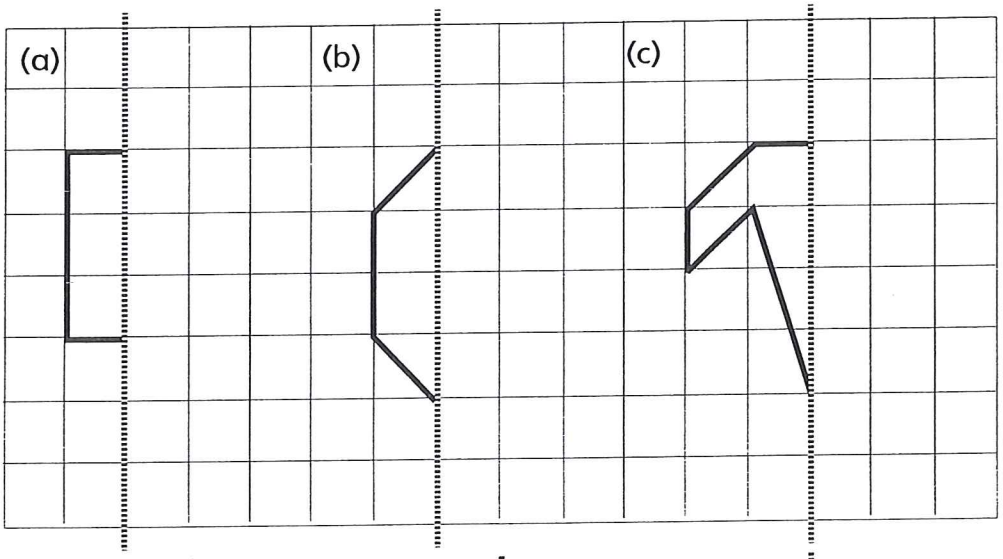
(h)

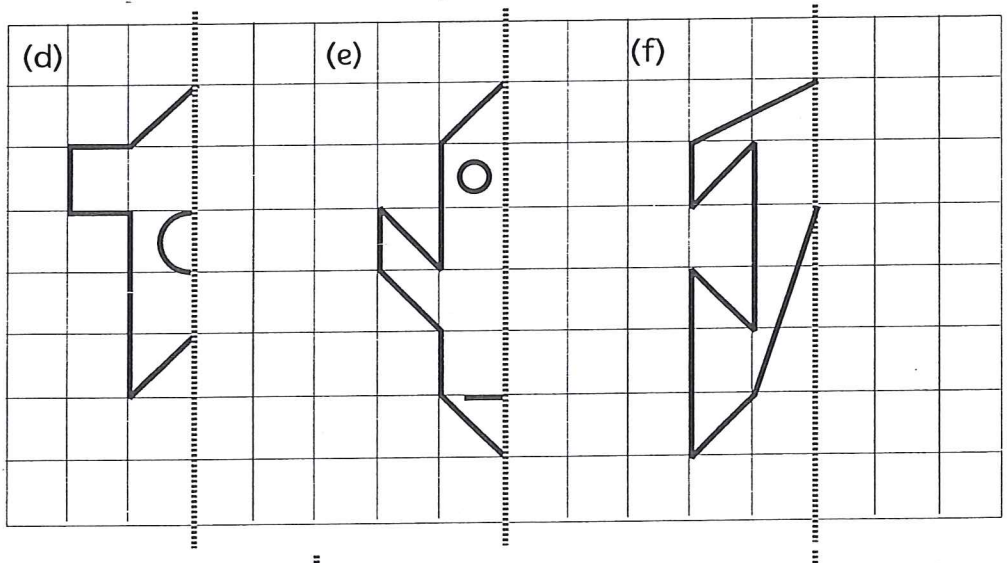


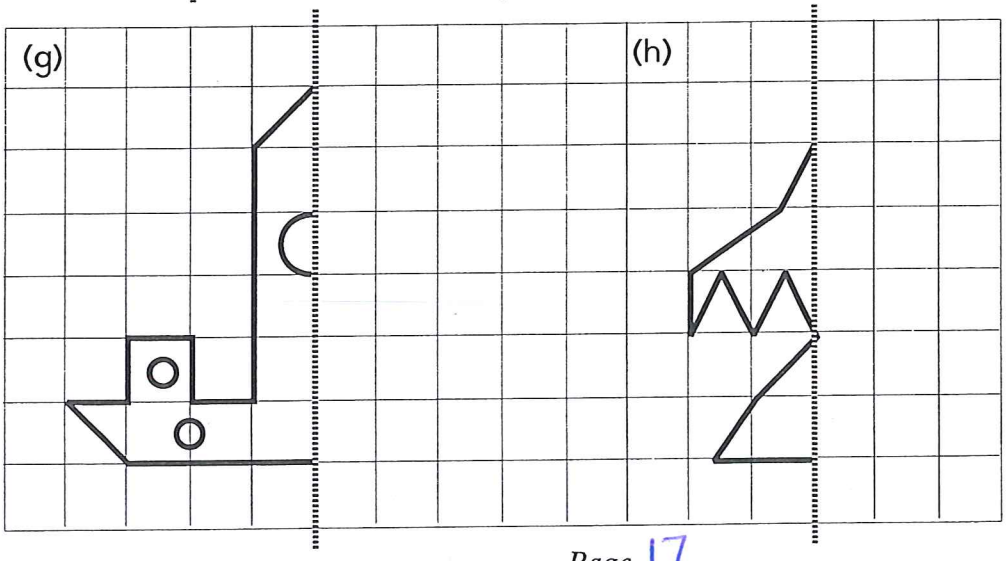
Homework Sheets
Symmetry No.10c

name .....
date due back .....
signed ..... score .....

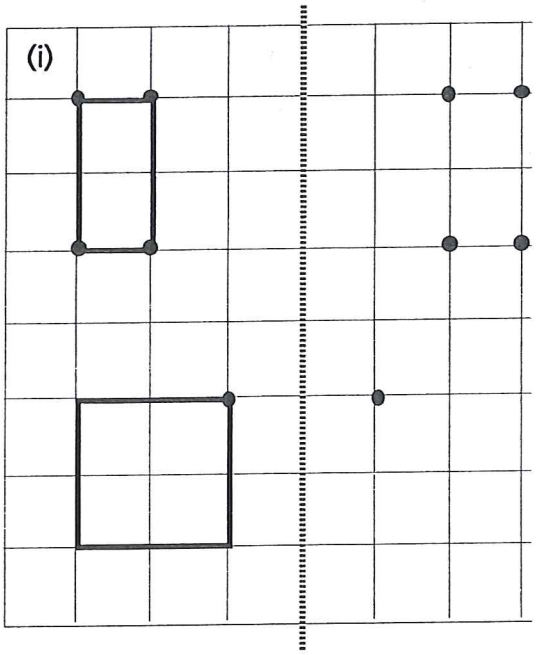
1. Complete the second half of each picture by drawing the reflection **(use a ruler)** :-



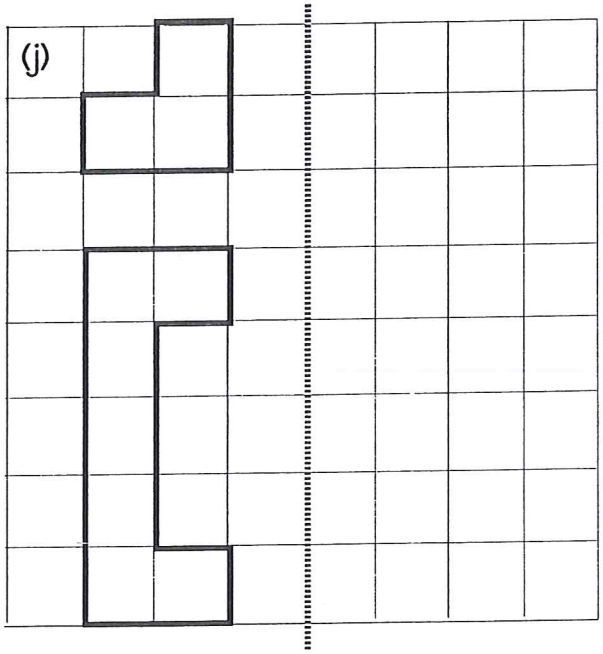




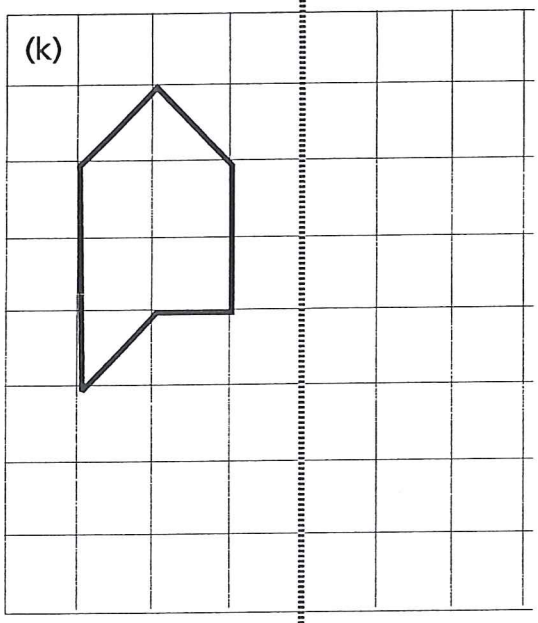
(i)



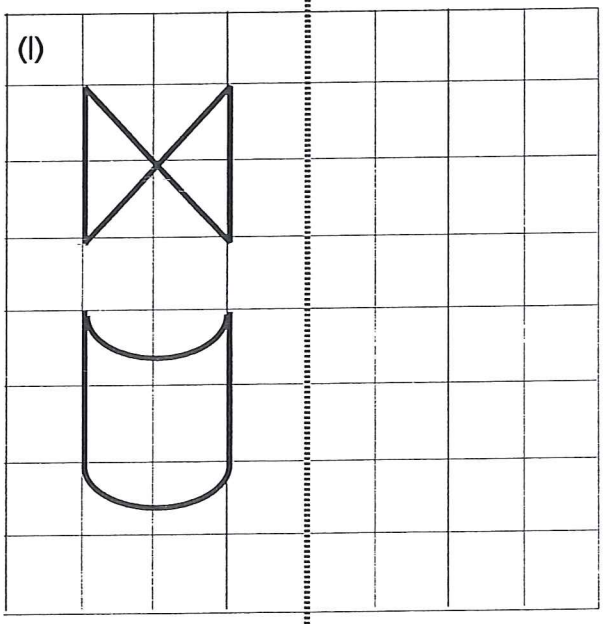
(j)



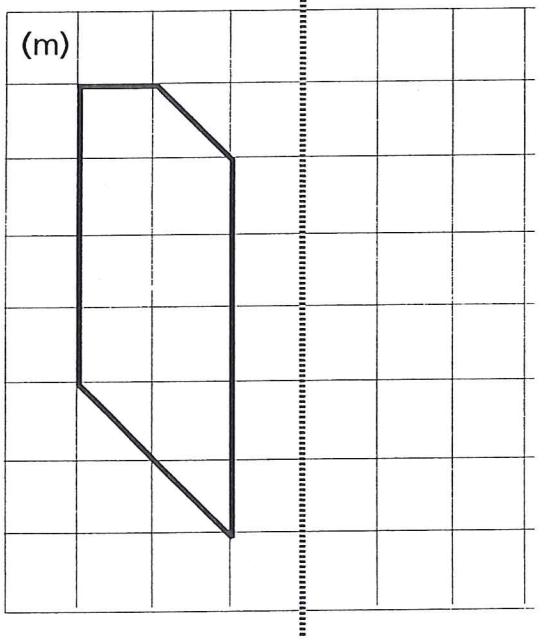
(k)



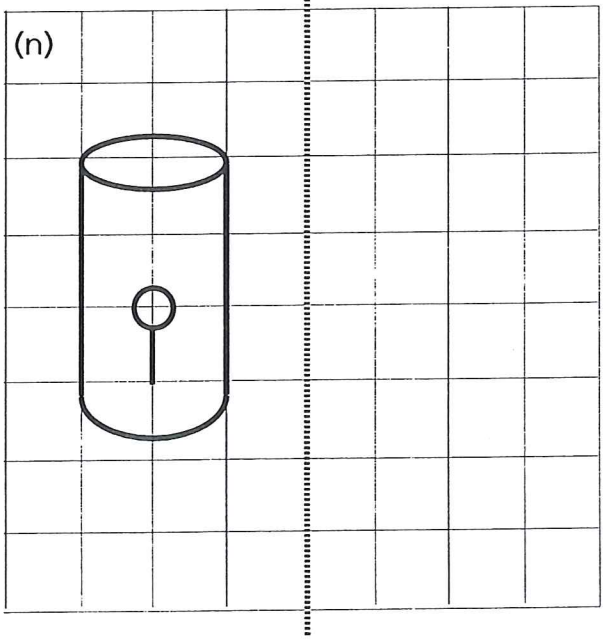
(l)



(m)



(n)



Homework Sheets

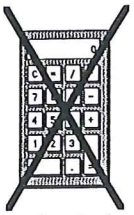
Angles

No. 2a

name .....

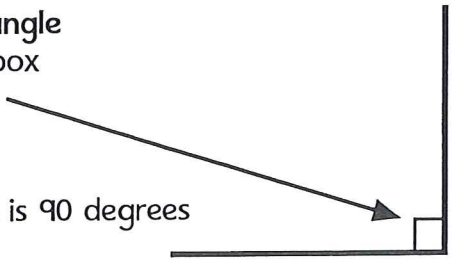
date due back .....

signed ..... score .....



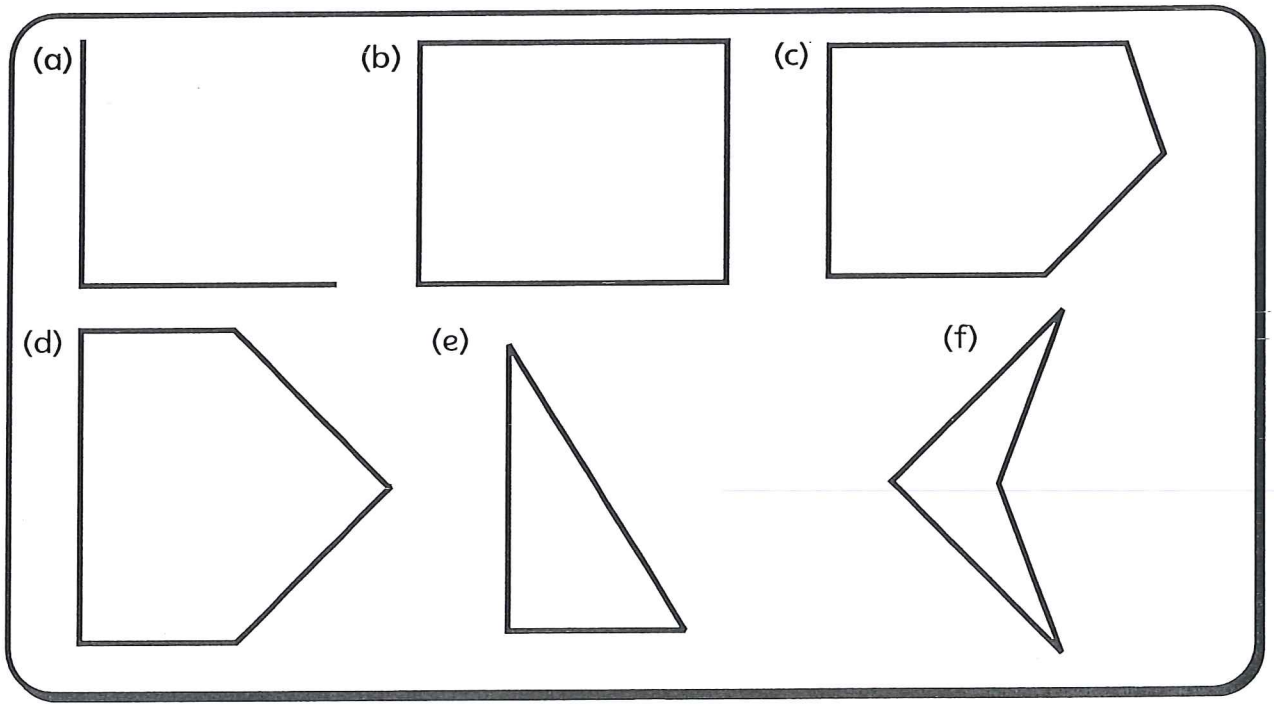
no calculator

Remember : To show a **right angle** we draw a small box in the corner.



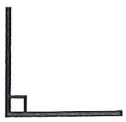
The size of a **right angle** is 90 degrees

1. **Mark** all the right angles in the following diagrams.



2. Fill in the blank spaces with the correct number of degrees :

(a) There are ☐ degrees one a right angle.

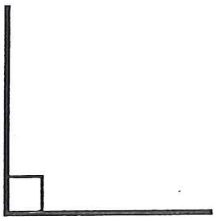


(b) There are ☐ degrees in two right angles (a straight line).

(c) There are ☐ degrees in four right angles (round a point).

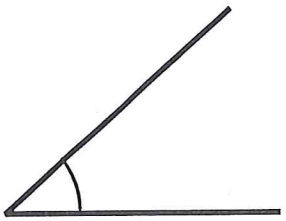
Remember :–

Right Angle



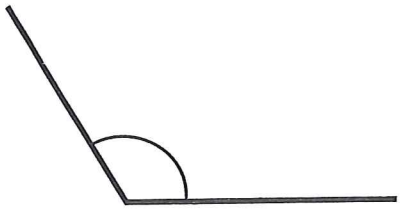
exactly 90°

Acute Angle



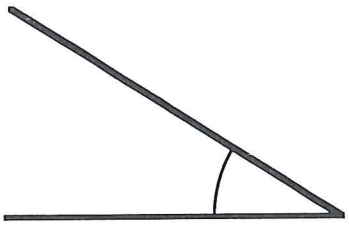
smaller than 90°

Obtuse Angle

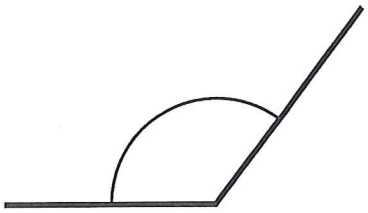


bigger than 90°

3. Say whether the angles below are **right, acute** or **obtuse** angles :
Write your answers in the boxes.

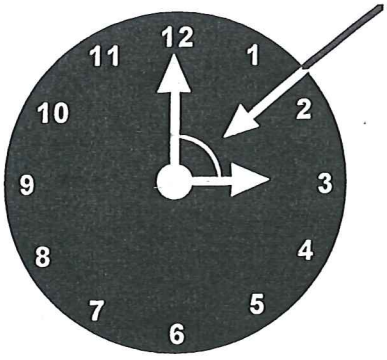


(a) ☐ angle

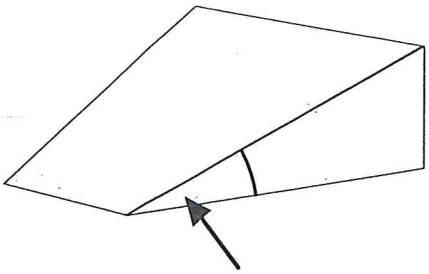


(b) ☐ angle

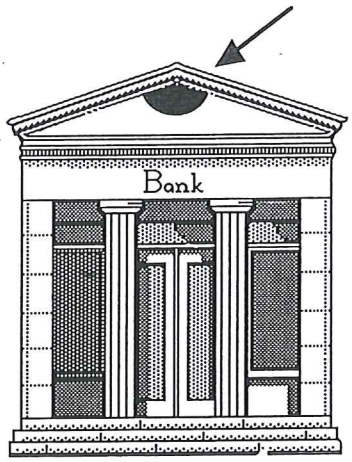
(c) ☐ angle



(d) ☐ angle



(e) ☐ angle



(f) ☐ angle

Homework Sheets

Angles

No. 2b

name .....

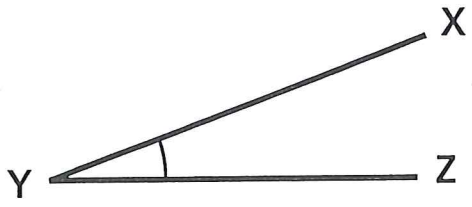
date due back .....

signed ..... score .....

Remember :–

To name an angle we must use 3 **letters**.

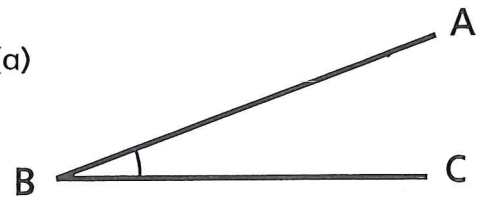
The corner letter (vertex) must be in the middle.



This acute angle is ∠XYZ or ∠ZYX

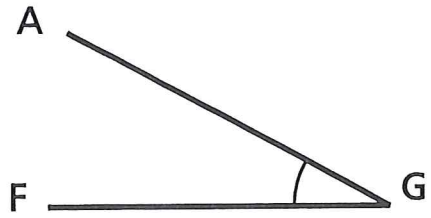
1. Name the angles below : –

(a)



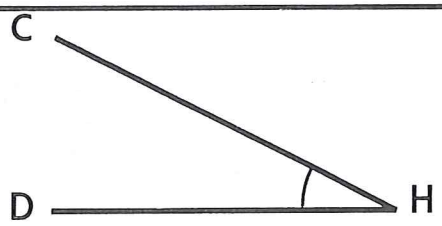
This acute angle is ∠ABC or ∠

(b)



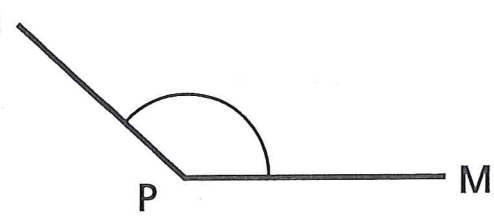
This acute angle is ∠ or ∠

(c)



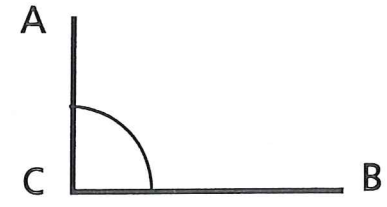
This acute angle is ∠ or ∠

(d)



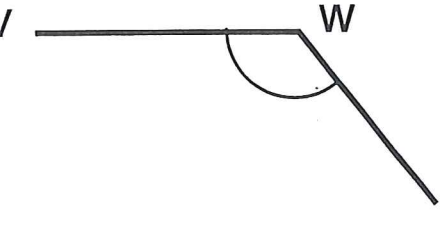
This obtuse angle is ∠ or ∠

(e)



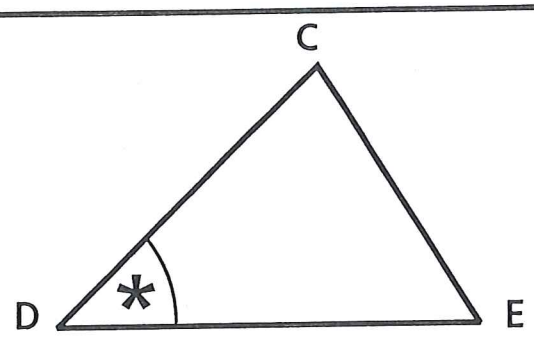
This right angle is ∠ or ∠

(f)



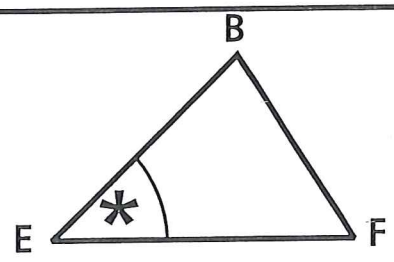
This obtuse angle is ∠ or ∠

The angle marked * is ∠CDE



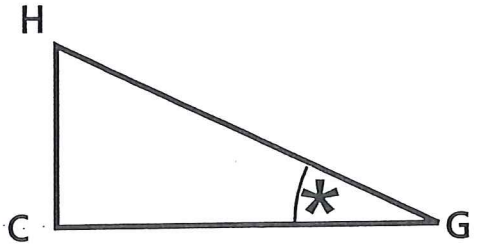
2. Name the angles marked :

(a)



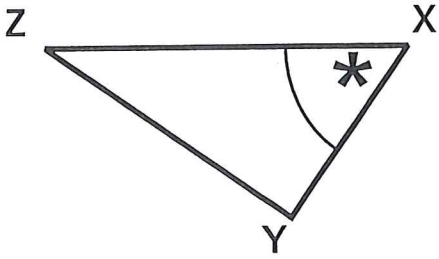
The angle marked * is ∠ ____

(b)



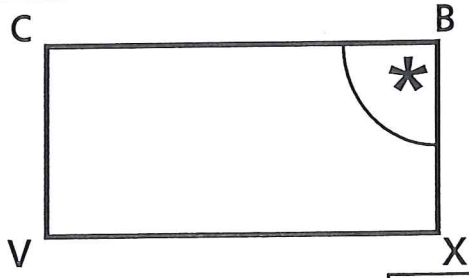
The angle marked * is ∠ ____

(c)

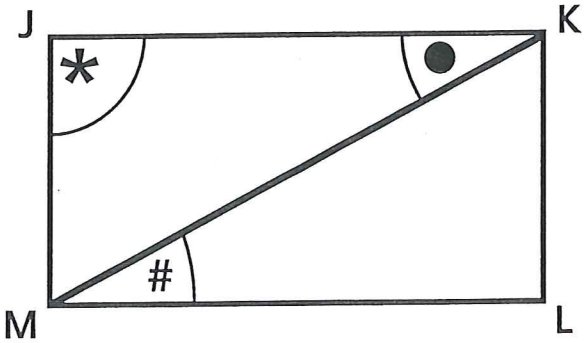


The angle marked * is ∠ ____

(d)



The angle marked * is ∠ ____



(e) The angle marked * is ∠ ____

(f) The angle marked # is ∠ ____

(g) The angle marked ● is ∠ ____

Homework Sheets

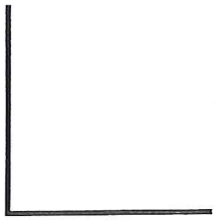
Angles

No. 2a

name .....
date due back .....
signed ..... score .....

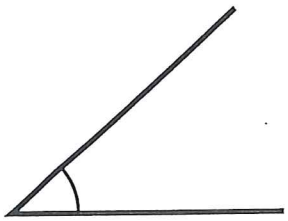
1. Use RIGHT, ACUTE, OBTUSE or STRAIGHT to describe the types of angles here :-

(a)



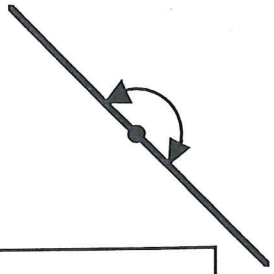
[ ] angle

(b)



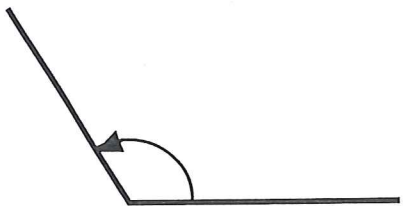
[ ] angle

(c)



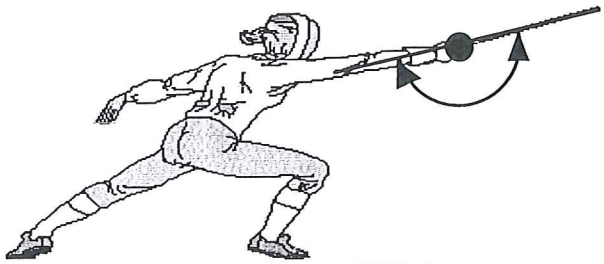
[ ] angle

(d)



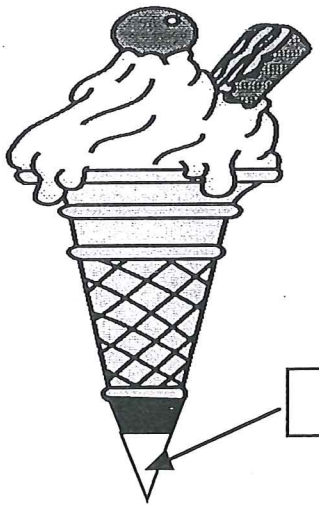
[ ] angle

(e)



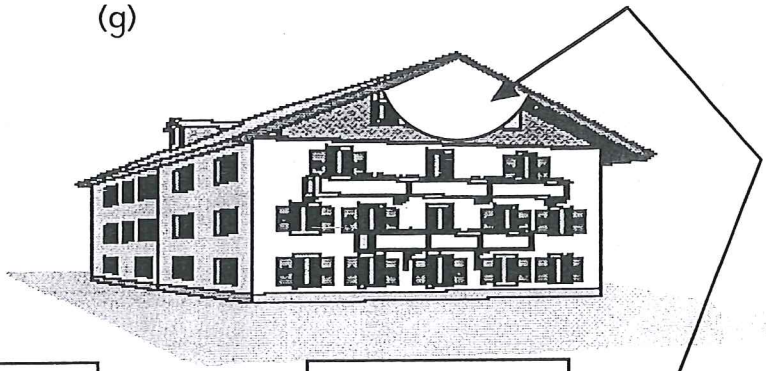
[ ] angle

(f)



[ ] angle

(g)



[ ] angle

2. COMPLETE :-

(a) There are [ ] degrees in a right angle.

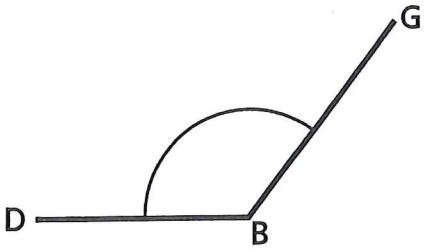
(b) There are [ ] degrees in a straight angle.

(c) There are [ ] degrees in two straight angles.

REMEMBER :-

To name an angle we must use 3 letters. Example :-

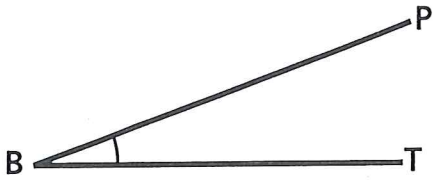
The corner letter (vertex) must be in the middle.



∠GBD is an obtuse angle

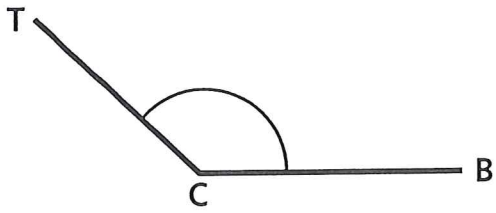
3. Name each angle below and say what type of angle it is.

(a)



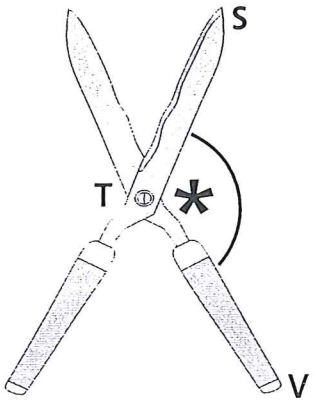
∠ ☐ is an ☐ angle

(b)



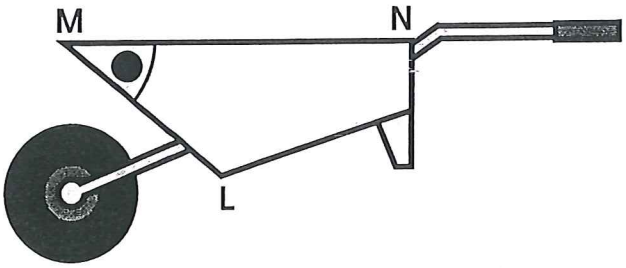
∠ ☐ is an ☐ angle

(c)



∠ ☐ is an ☐ angle

(d)



∠ ☐ is an ☐ angle

4. Look at the diagram and fill in the boxes :- (the first one is done for you)

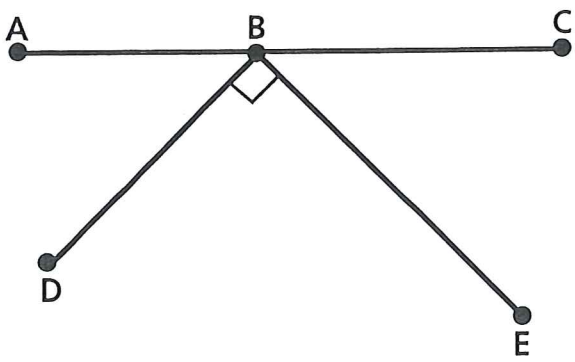
(a) Name an ACUTE angle... ∠ ABD

(b) Name another ACUTE angle... ☐

(c) Name a RIGHT angle... ☐

(d) Name a STRAIGHT angle... ☐

(e) Name an OBTUSE angle... ☐



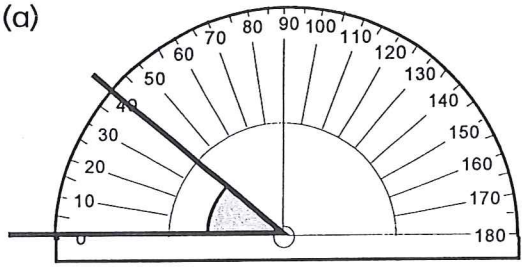
Homework Sheets

Angles No. 2b

name .....
date due back .....
signed ..... score .....

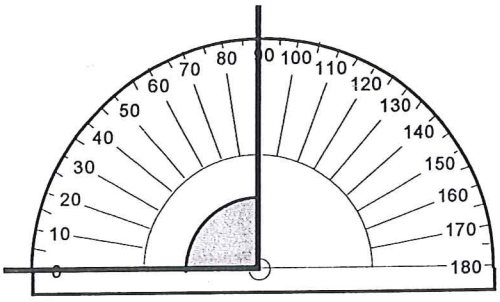
1. Write the size of each angle below.

(a)



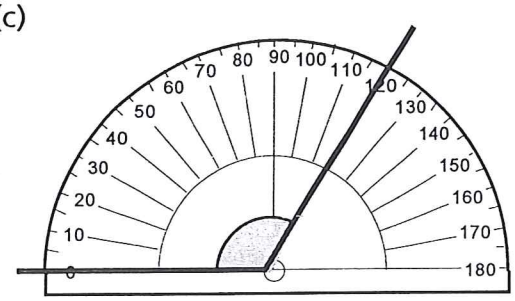
☐ degrees

(b)



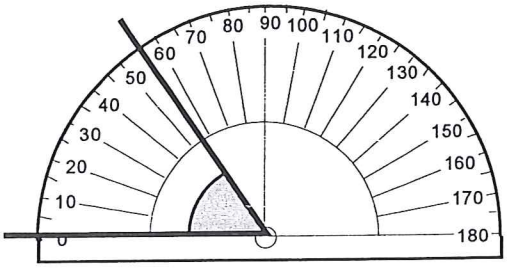
☐ degrees

(c)



☐ degrees

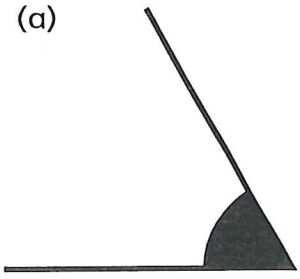
(d)



☐ degrees

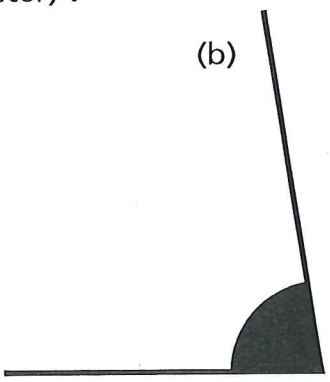
2. Estimate the size of these angles (do not use a protractor) :-

(a)



☐ degrees

(b)



☐ degrees

(c)

☐ degrees

Use a pair of scissors to cut carefully round the protractor at the foot of the page to HELP you in this question - but DO NOT use an actual plastic protractor to draw the angle.

3. (a) Draw ∠ABC (45°)

A B

(b) Draw ∠DEF (20°)

D E

(c) Draw ∠XYZ (150°)

X Y

(d) Draw ∠GHI (70°)

G H

(e) Draw ∠MNP (10°)

M N

cut carefully around this protractor with a pair of scissors