

## CoEA Module 3

## Overhead Slides

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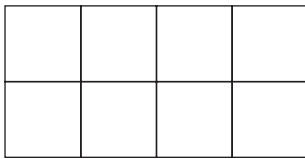
## OS 17.1

*Perimeters*

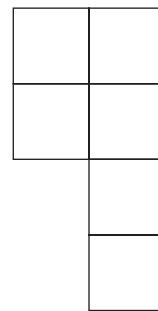
Find the perimeter of each of these shapes.

All the small squares have sides of length 1 cm.

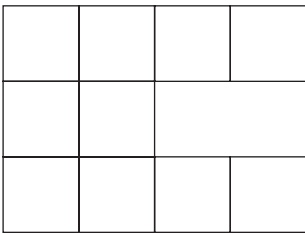
(a)



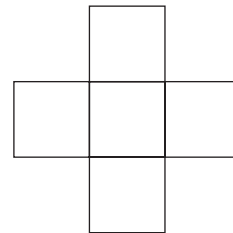
(b)



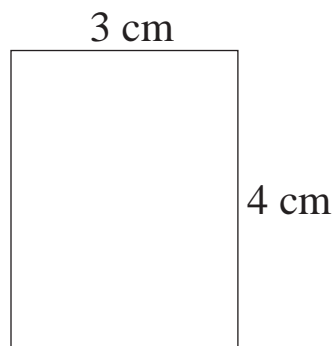
(c)



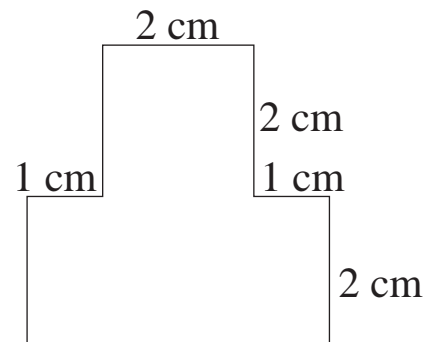
(d)



(e)



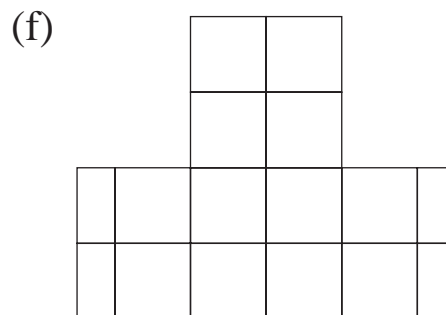
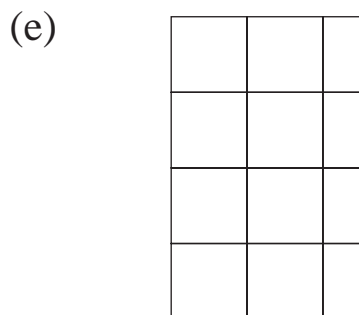
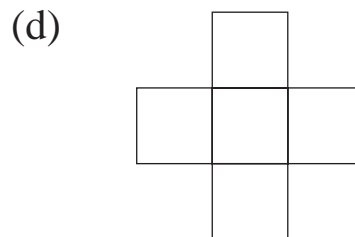
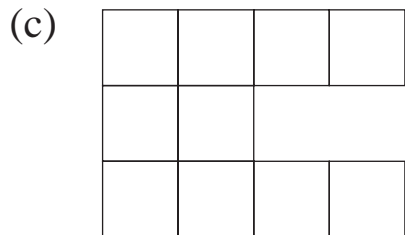
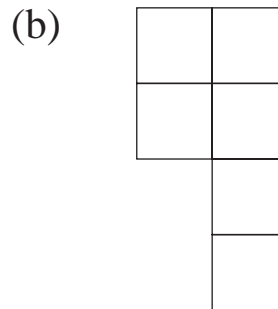
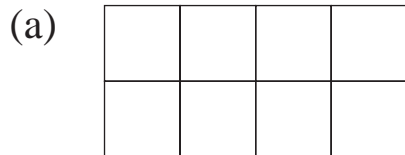
(f)



**OS 17.2***Areas*

Find the area of each of these shapes.

All the small squares have sides of length 1 cm.



## OS 18.1

## 24-hour Clock

Here are the TV listings for one evening on BBC1.  
Some of the start times are given in am / pm time and some in 24-hour clock time. Complete all the entries in the listing.

	<i>am / pm</i>	<i>24-hour time</i>
<i>News</i>	6.30 pm	<input type="text"/>
<i>Regional News</i>	<input type="text"/>	19.00
<i>EastEnders</i>	7.30 pm	<input type="text"/>
<i>Children's Hospital</i>	8.00 pm	<input type="text"/>
<i>A Prince Among Men</i>	<input type="text"/>	20.30
<i>News</i>	<input type="text"/>	21.00
<i>Crimewatch UK</i>	9.30 pm	<input type="text"/>
<i>999</i>	10.20 pm	<input type="text"/>
<i>Film</i>	<input type="text"/>	23.20
<i>Weather</i>	<input type="text"/>	1.15
<i>BBC News 24</i>	1.20 am	<input type="text"/>

## OS 18.2

*Train Timetable*

Here is part of a train timetable for trains from London to York.

London, King's Cross	d	0900	0910	0930	1000	1010
Peterborough	d	0944	0954	1018	1044	1058
Grantham	d	↓	1013	↓	↓	1118
Newark	d	↓	1023	↓	↓	1130
Retford	d	↓	1040	↓	↓	↓
Doncaster	d	↓	1056	1106	↓	1155
York	a	1052	-	1130	1151	-

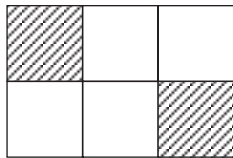
- (a) If you arrive at London, King's Cross, at 0855, at what time should you get to
- (i) YORK      (ii) DONCASTER      (iii) GRANTHAM ?
- (b) If you arrive at Peterborough at 1015, at what time should you get to NEWARK ?
- (c) How long is the fastest journey time between
- (i) LONDON and PETERBOROUGH,
- (ii) LONDON and YORK ?

# OS 19.1

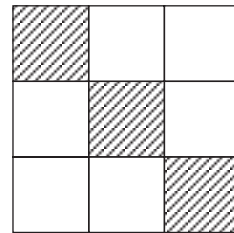
## Identifying Fractions

In each of the shapes below, what fraction of the whole shape is shaded?

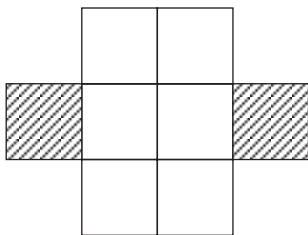
(a)



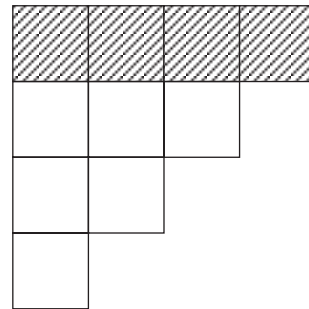
(b)



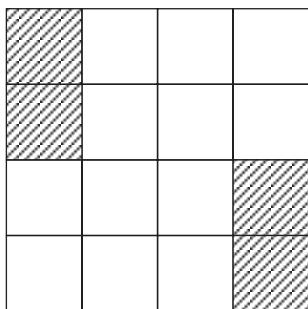
(c)



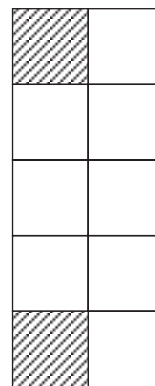
(d)



(e)



(f)

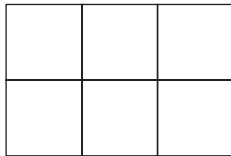


## OS 19.2

*Finding Fractions*

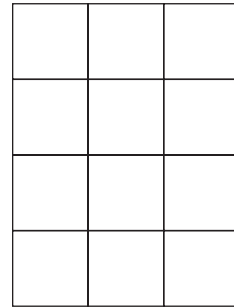
Shade the given fraction.

(a)



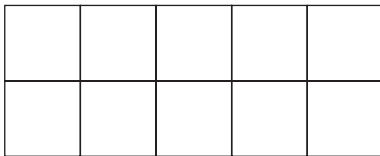
$$\frac{2}{3}$$

(b)



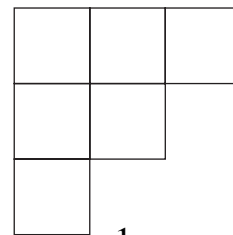
$$\frac{1}{4}$$

(c)



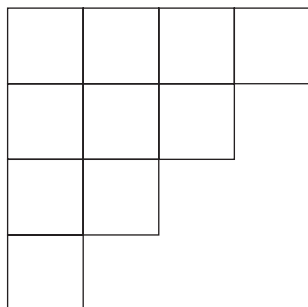
$$\frac{4}{5}$$

(d)



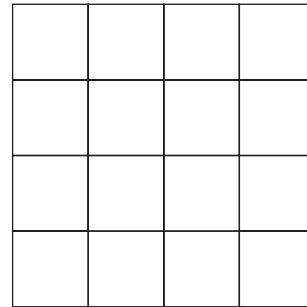
$$\frac{1}{2}$$

(e)



$$\frac{2}{5}$$

(f)



$$\frac{3}{4}$$

## OS 19.3

*Equivalent Fractions and Percentages*

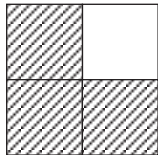
<i>Fraction</i>	<i>Percentage</i>
$\frac{1}{10}$	10%
$\frac{1}{5}$	<input type="text"/>
<input type="text"/>	25%
$\frac{3}{10}$	<input type="text"/>
<input type="text"/>	40%
$\frac{1}{2}$	<input type="text"/>
$\frac{3}{5}$	<input type="text"/>
<input type="text"/>	70%
$\frac{3}{4}$	<input type="text"/>
$\frac{4}{5}$	<input type="text"/>
<input type="text"/>	90%
1	<input type="text"/>

# OS 19.4

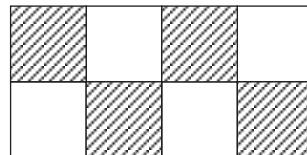
## Percentages (A)

What percentage of each of these whole shapes is shaded?

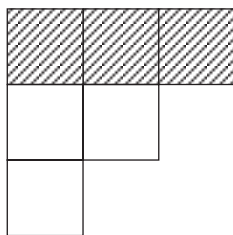
(a)



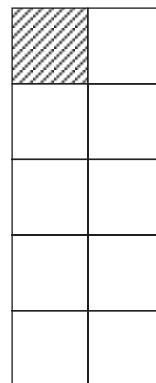
(b)



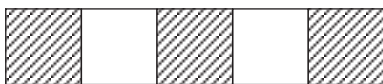
(c)



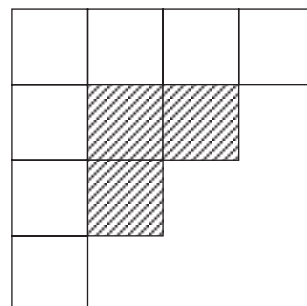
(d)



(e)



(f)



**OS 20.1***Sorting and Classifying Data*

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Put these numbers into the correct boxes in the table below.

21, 142, 2, 7, 139, 100, 51, 60, 9, 155

	<i>Odd</i>	<i>Even</i>
1-digit		
2-digit		
3-digit		


## OS 20.2

*Pictograms*

The number of goals scored by the five leading football teams in the Premiership Division, 1997/98, is shown below.

<i>Team</i>	<i>Goals scored</i>
Arsenal	68
Manchester United	73
Liverpool	68
Chelsea	71
Leeds	57

Using the key 

	≡ 4 goals
---	-----------

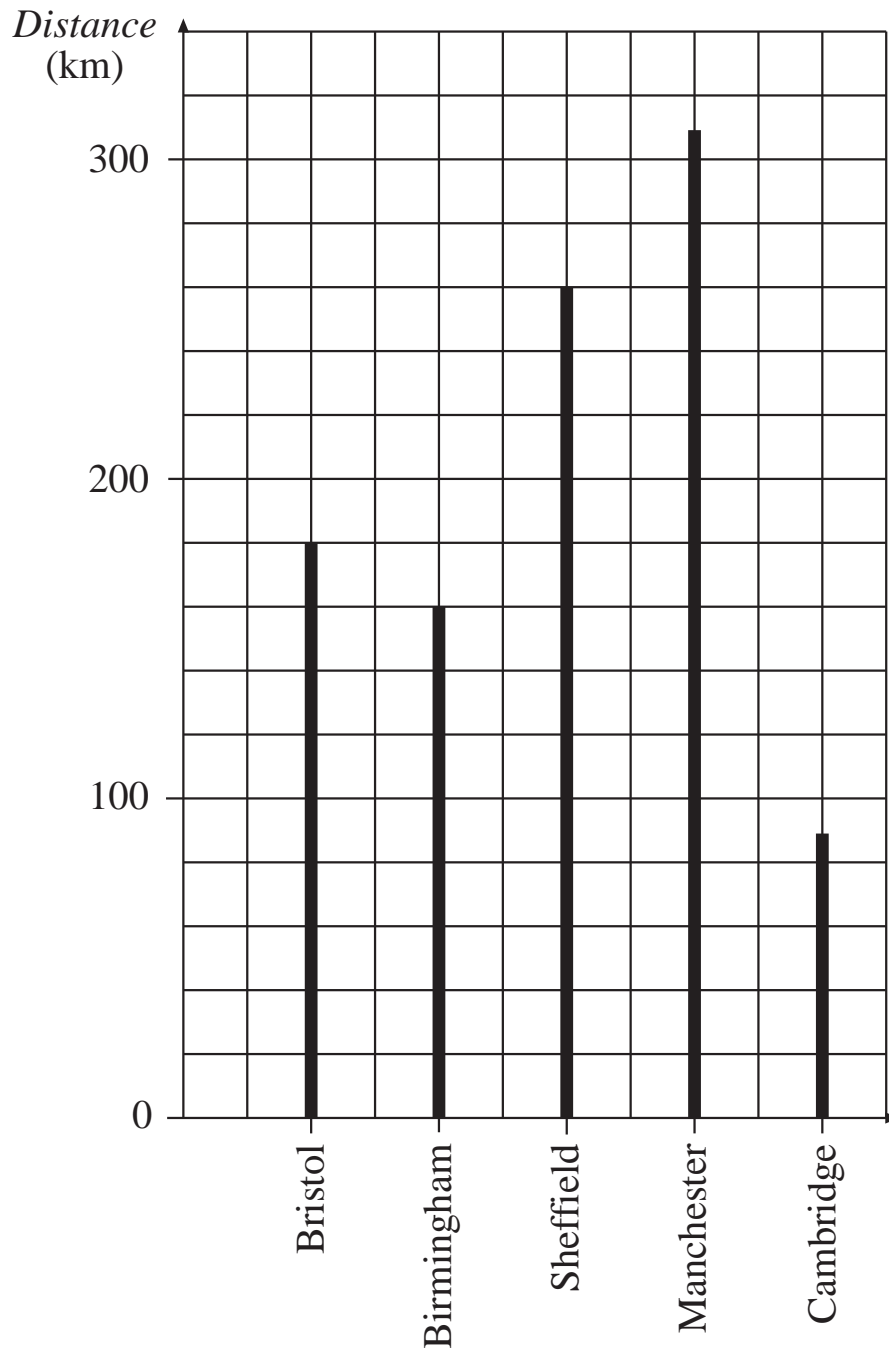
, complete the pictogram to illustrate the data.

Arsenal	
Manchester United	
Liverpool	
Chelsea	
Leeds	

## OS 20.3

*Line Diagrams*

The distances, in km, of five cities from London are illustrated on the line diagram below.



- (a) What is the distance between
- (i) Sheffield and London,
  - (ii) Cambridge and London?
- (b) Which of these cities is furthest from London?
- (c) Which of these cities is nearest to London?

## OS 21.1

*Outcomes*

Two dice are thrown.

1. Complete the table below to show
  - (a) the *sum* of the scores on the two dice,
  - (b) the *difference* in the scores of the two dice.

*Dice A*

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<i>Dice B</i>	<b>1</b>						
	<b>2</b>						
	<b>3</b>						
	<b>4</b>						
	<b>5</b>						
	<b>6</b>						

2. For each case, what is
  - (a) the most likely outcome,
  - (b) the smallest outcome,
  - (c) the largest outcome?

## OS 21.2

*Estimating the Likelihood of Events*

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Here is a list of 6 events labelled A, B, C, D, E and F.

- A : *there will be snow on the school roof tomorrow*
- B : *there will be rain on the school roof tomorrow*
- C : *it will be sunny here tomorrow*
- D : *tomorrow will be Saturday*
- E : *school will be open tomorrow*
- F : *someone in this school will have a birthday tomorrow*

On the probability scale below, suggest a suitable position for each event.

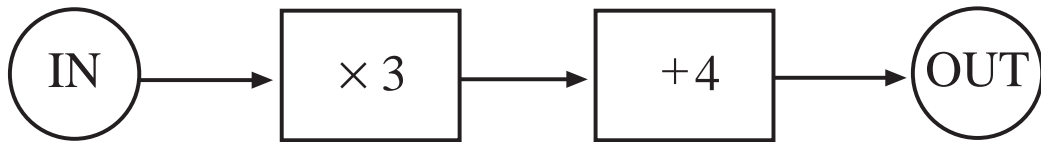


## OS 22.1

## Two Function Machines 1

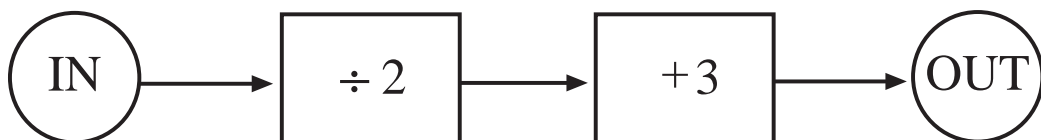
Complete each of the input/output tables.

**A**



<i>Number In</i>	<i>Number Out</i>
2	
5	
	13
	34

**B**



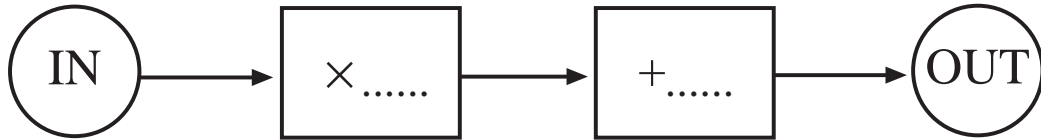
<i>Number In</i>	<i>Number Out</i>
4	
10	
	13
	53

## OS 22.2

## Two Function Machines 2

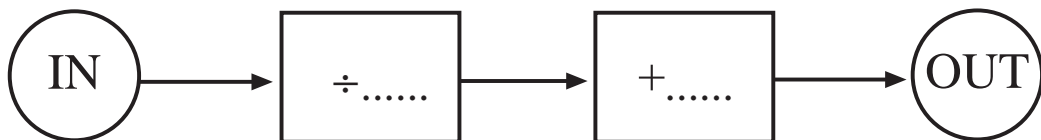
Find a number machine that gives the input/output table shown.

**A**



<i>Number In</i>	<i>Number Out</i>
1	5
3	9
10	23
50	103

**B**



<i>Number In</i>	<i>Number Out</i>
5	3
10	4
50	12
100	22

# OS 23.1

## *Finding the Pattern*

For each of these number patterns, find the next 2 numbers. What is the rule being used?

---

(A) 1, 3, 5, 7, ,

Rule .....

---

(B) 1, 3, 6, 10, ,

Rule .....

---

(C) 50, 47, 44, 41, ,

Rule .....

---

(D) 50, 49, 47, 44, ,

Rule .....

---

(E) 1, 4, 9, 16, ,

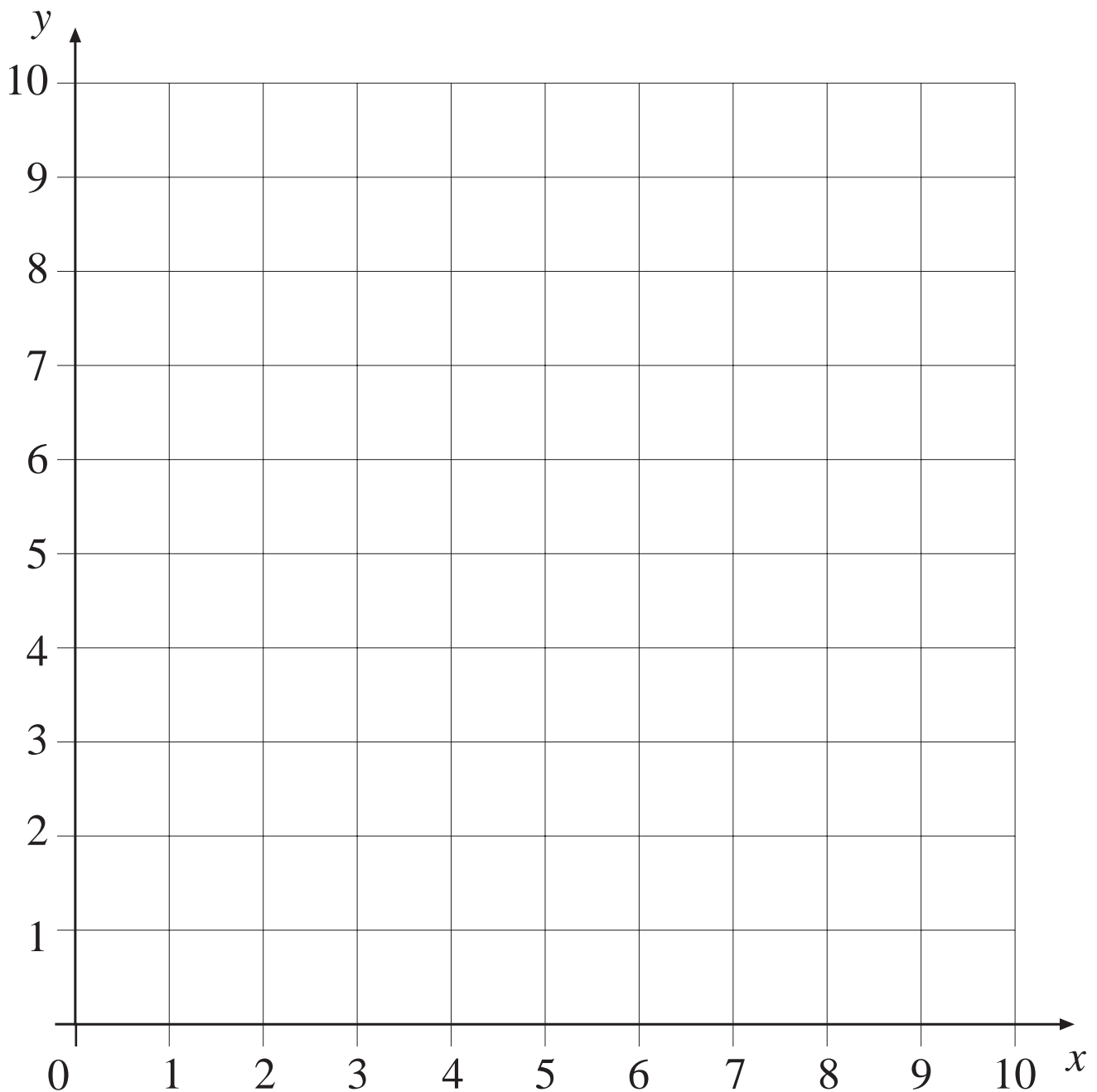
Rule .....

**OS 24.1***Plotting Points*

On the grid below, plot each of the following points.

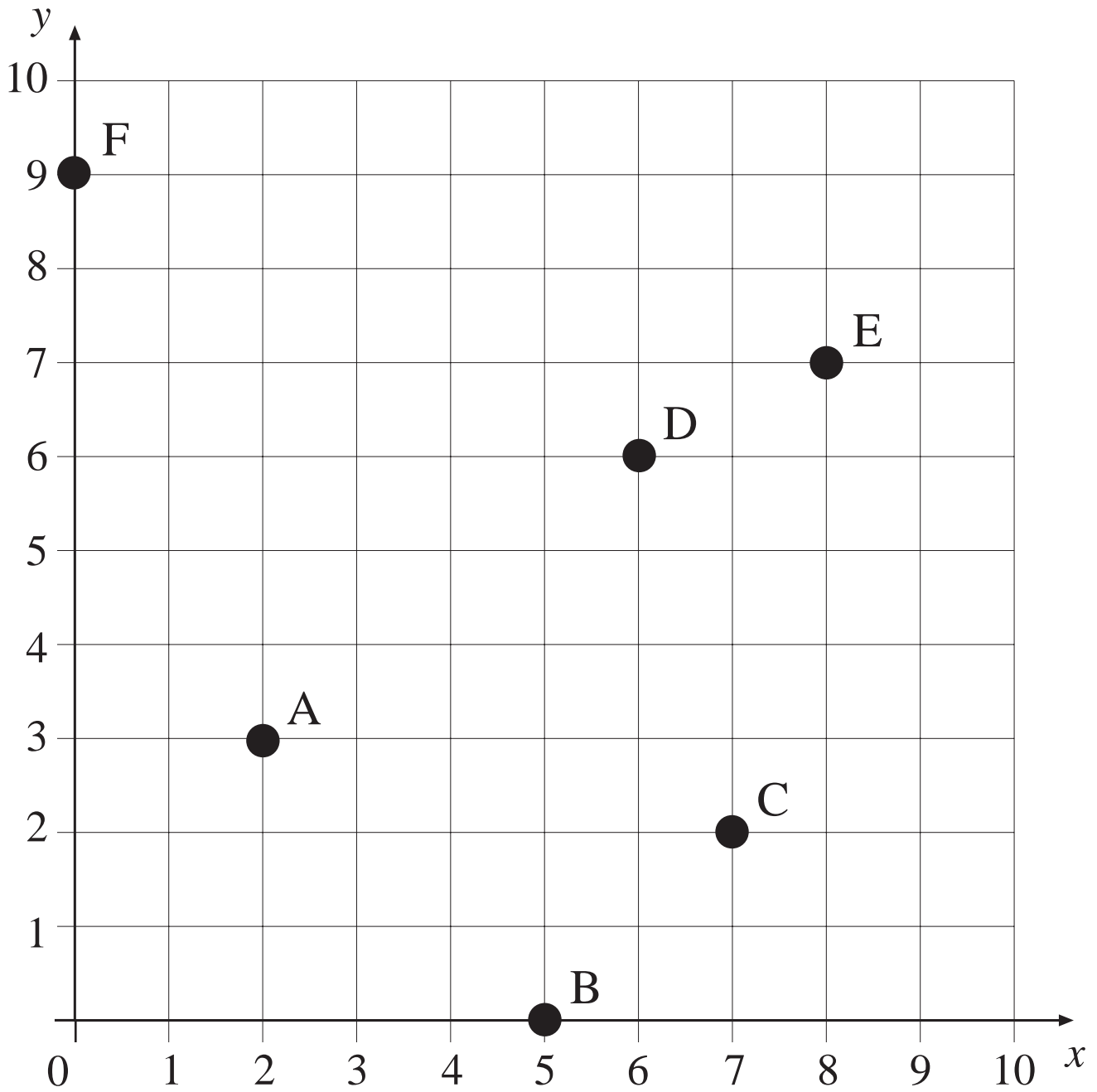
A : (2, 1)      B : (1, 2)      C : (4, 0)      D : (4, 4)

E : (0, 5)      F : (6, 7)      G : (9, 9)      H : (8, 2)



## OS 24.2

## Finding Coordinates



What are the coordinates of the points marked on the grid?

A : (    ,    )      B : (    ,    )      C : (    ,    )

D : (    ,    )      E : (    ,    )      F : (    ,    )