

CHAPTER 21



Exercise 1

1. Use one of these words to say how likely it is for each of these to happen :-

Impossible

Not Likely

Even Chance

Likely

Certain

- If today is Sunday, yesterday was Saturday.
- If this is Christmas, next month will be November.
- Partick Thistle will win the Champion's League Trophy.
- If you toss a coin, it will show tails.
- Your teacher will give homework sometime this month.
- From a pack of cards, you will **not** pick a heart.



2. From :- *Impossible, Unlikely, Evens, Likely* and *Certain*, which word best fits each of the following ?

- If you pick a card from a pack, it will be the Jack of Clubs.
- If you roll a 6-sided dice, it will land showing a 6, 5 or 4.
- If you live at the equator, it will snow in Summer.
- The next person you meet will be over 4 metres tall.
- If you spin this spinner, it will **not** land on number 5.



- Write down 2 things that you think are **certain** to happen tomorrow.
- Write down 2 things that you think are **impossible** to happen tomorrow.

4. Jason has 24 toy cars.

Some of them are **red** and the rest are **green**.

When he puts them in a box there is an **equal chance** of picking out a **red** or a **green** car.

How many **green** cars does he have ?



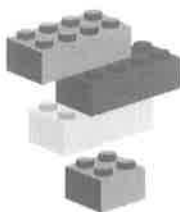
Exercise 2

1. George has 3 marbles in a bag. 2 of them are black and one is white. He cannot see them as he takes them out of the bag.

Which colour of marble is he **more likely** to choose when he takes the first one from the bag?



2.



Of the 11 toy blocks in a box, 7 of them are blue.

Tara chooses a block. Is it **more likely** or **less likely** to be blue?

3. 1000 raffle tickets are sold at a church raffle. Ann buys 3 tickets and Zena buys 2 tickets.

Who is **more likely** to win, Ann or Zena?



4. A bag has 5 red sweets, 4 green sweets and 6 yellow sweets. Harry picks out two red sweets and eats them. Paula picks out a green sweet and eats it.

What are the chances of Ralph now picking out a yellow sweet?



Exercise 3

1. There are 9 oranges and 2 apples in a bowl.

a How many pieces of fruit are there in the bowl?

b **Copy and complete** the sentence :-

"The chance of an apple being eaten first is out of"



2. a When a six sided dice is rolled, what is the **chance** that it will show a :-

(i) four (ii) 2, 4, or 6 (iii) 1, 2, 3 or 4 (iv) 7?

b What is the **chance** a 1, 2 or 3 will show at the top?

3. There are 6 red balls, 5 blue balls and 2 black balls in a bag.

a How many balls in total are in the bag?

b What are the chances of picking a ball that is :-

(i) blue (ii) black (iii) yellow?

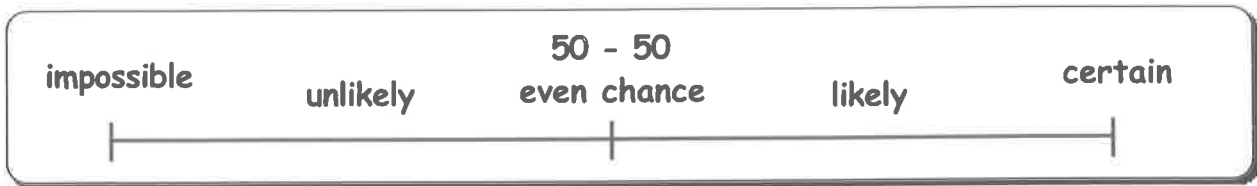
c What are the chances of **not** picking a black ball?



Revision Exercise

Use the probability line shown below to answer question 1.

Example That I will see snow if I went to the North Pole. This is **certain**.



1.
 - a I will get a job when I am older.
 - b If today is Monday, tomorrow will be Tuesday.
 - c It will be very warm in Africa in Summer.
 - d Toss a coin and it will land heads up.
 - e I will go to school on Sunday next week.
 - f When I grow up, I will be exactly 6 feet tall and weigh exactly 90 kg.
 - g The first pupil I will meet in school tomorrow will be a girl.



2. In each of the following, which is **more likely** :-
 - a tossing a coin and getting heads or rolling a 6-sided dice and throwing a 6 ?
 - b my teacher jumping a height of 1 metre or 3 metres ?
 - c a large number of teachers or a large number of children in the classroom ?

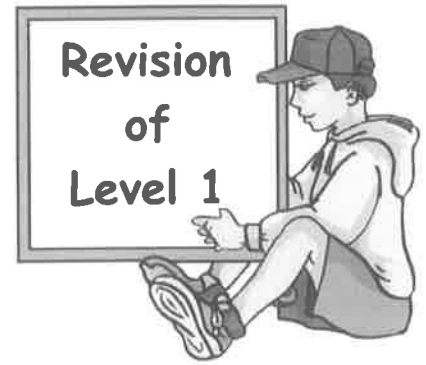
3. Sally's bag has **3 white**, **4 cream** and **5 red** roses.
 - a What is the chance of Sally picking at random a **white** rose
 - b What is the chance of Sally picking at random a **red** rose ?
 - c What is the chance of Sally picking at random a **green** rose ?



4. In a van depot there are :-
20 black vans, 30 red vans and 50 white vans.
 - a How many vans are there in total ?
 - b What is the chance that the first van to leave will be black ?
 - c What is the chance that the first van to leave will **not** be red ?



CHAPTER 22



Revision of Level 1

1. Round to the nearest 10 :-

- a 23 b 98 c 124 d 385.

2. $367 + 414$ is about the same as $370 + \dots$, which equals \dots

3. Write each of the following numbers using digits :-

- a eight hundred and sixty three b two thousand and thirty.

4. Write each of the following in words :-

- a 145 b 703 c 8970 d 4006.

5. Write the number that comes :-

- a just before 850 b just after 509.

6. Find the following :-

- a $\begin{array}{r} 160 \\ + 70 \\ \hline \end{array}$ b $\begin{array}{r} 487 \\ + 155 \\ \hline \end{array}$ c $\begin{array}{r} 76 \\ - 18 \\ \hline \end{array}$ d $\begin{array}{r} 471 \\ - 133 \\ \hline \end{array}$
- e $235 + 60$ f $543 + 435$ g $784 - 112$ h $876 - 198$.

7. Tricia opened her fashion shop with 250 dresses.
In her first month, she sold 185 of them.

How many dresses did she have left in her shop?



8. Find the following :-

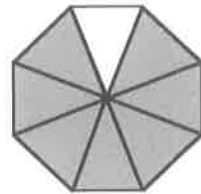
- a $\begin{array}{r} 27 \\ \times 6 \\ \hline \end{array}$ b $\begin{array}{r} 176 \\ \times 5 \\ \hline \end{array}$ c $\begin{array}{r} 3 \overline{)87} \\ \hline \end{array}$ d $\begin{array}{r} 7 \overline{)141} \\ \hline \end{array}$
- e 56×4 f 267×8 g $675 \div 5$ h $1680 \div 4$.

9.



Nine oak tables weigh a total of 162 kg.
What is the weight of 1 table?

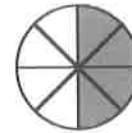
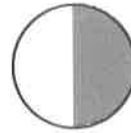
10. What fraction of this shape has not been shaded ?



11. Use an object to draw a circle and show how to divide it into $\frac{1}{3}$'s.

12. Find :- a $\frac{1}{3}$ of £180 b $\frac{1}{4}$ of 64 cm c $\frac{1}{5}$ of 45 kg.

13. This picture shows two equivalent fractions.
What number does the star (*) stand for ?



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

14. a **COPY** and **COMPLETE** this bill and find the **total** cost.

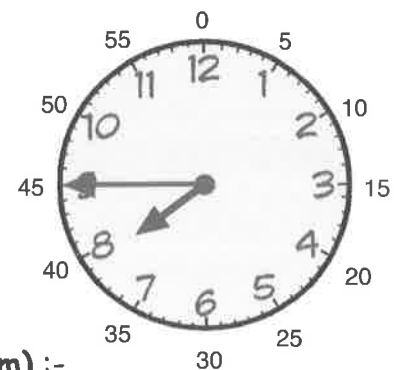
b How much change would I get from a £20 note ?

6 bags of carrots at 80p each	=	£
2 loaves at £1.65 each	=	£
3 kg of potatoes at £1.35/ kg	=	£
TOTAL	=	£

15. Write the time on the clock face shown in 2 ways.

16. Write each of the following in 24 hour time :-

- a 2 pm b 8 am
c 7.30 pm d five past midnight.



17. Write each of the following in 12 hour time (use am or pm) :-

- a 0415 b 1700 c 2010.

18. What day is 3 days - a after Saturday b before Sunday ?

19. How many days are there in :- a April b May ?

20. Which season comes just before :- a Winter b Summer ?

21. Yesterday, I hoovered the living room.

Which of these times gives the best estimate as to how long it took :-

10 seconds, 10 minutes, 10 hours, 10 days ?

22. How long is it from :-

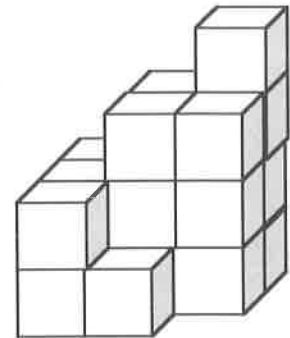
- a 8:15 pm till 9:10 pm b 11:20 am to 1 pm c 1450 till 1510 ?

23. What instrument would you use to measure the length of :-
 a a bus b this book c the distance from Perth to Dundee ?
24. Which of these is the best **estimation** of the length of a jet aircraft ?
 20 cm, 20 metres, 200 metres, 2 kilometres.
25. Measure the length of this pencil to the nearest centimetre ?



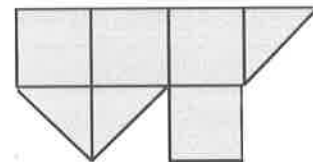
26. Write each of these sets of objects in order, with the **smallest** volume first :-
 a cup, bucket, jug, bath b sea, sink, bath, lake, thimble.

27. Count the number of cubic centimetres in the 3D shape shown.

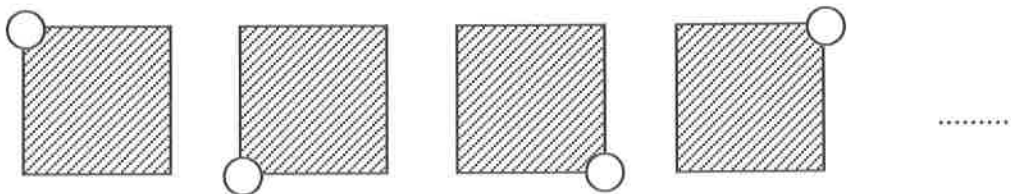


28. Change each of the following to kilograms :-
 a 4000 g b 12000 g c 500 g.

29. Write down the **coloured** area of this shape in cm^2 .



30. Draw the next shape in this pattern :-



31. Write down the **next 2 numbers** or **letters** in each pattern :-
 a 4, 8, 12, 16, 20,, b 42, 45, 48, 51,,
 c 98, 87, 76, 65,, d A, E, I, M, Q,,

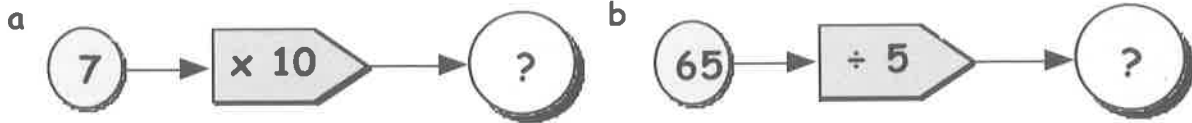
32. Write each set of calculations in order, with the **largest** answer first :-

a	3×5	$3 + 4 + 5 + 6$	$48 \div 3$	$40 - 26$
b	4×8	$6 + 7 + 8 + 9$	$93 \div 3$	$60 - 27$

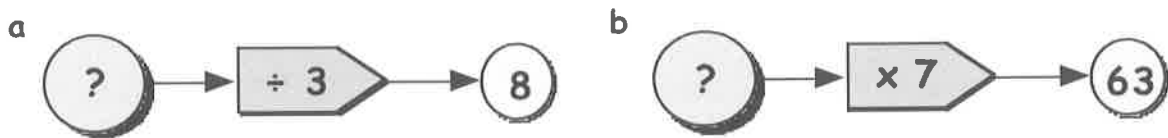
33. Copy each of these and write =, >, or < between each one to make the calculations correct :-

- a $42 \dots\dots 39$ b $1 + 3 + 5 \dots\dots \frac{1}{2}$ of 18 c $14 \times 3 \dots\dots 13 \times 4$.

34. What number comes OUT of each of these number machines ?



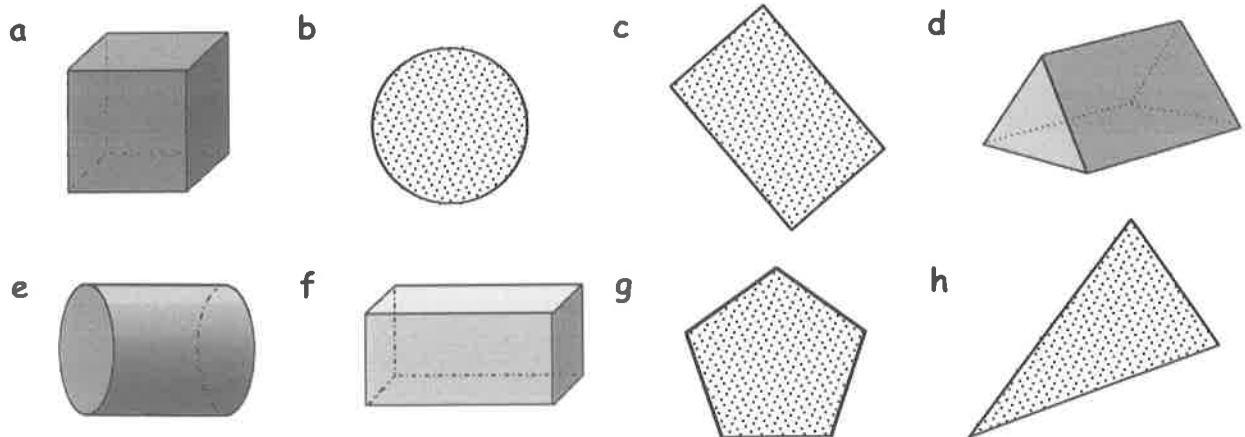
35. What number was put IN to each of these number machines ?



36. Copy and complete :-

- a $24 + \dots\dots = 42$ b $8 \times \dots\dots = 48$ c $54 \div \dots\dots = 6$
 d $7 \dots\dots 6 = 42$ e $81 \dots\dots 9 = 9$ f $27 \dots\dots 26 = 1$.

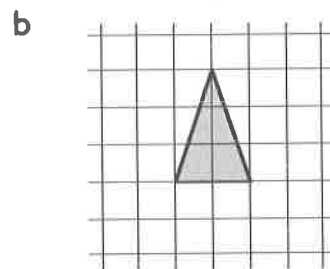
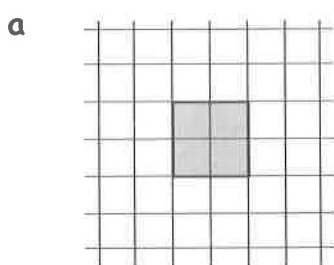
37. Name the following 2D and 3D shapes :-



38. a Name two different 2D shapes from the shapes shown above.
 b Name two different 3D shapes from the shapes shown above.

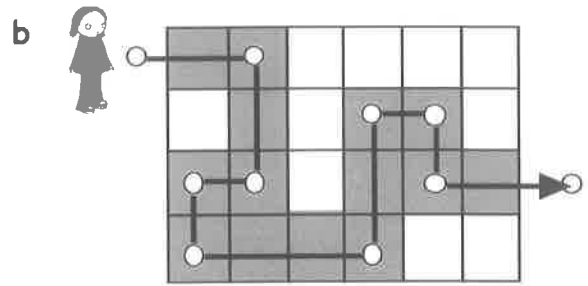
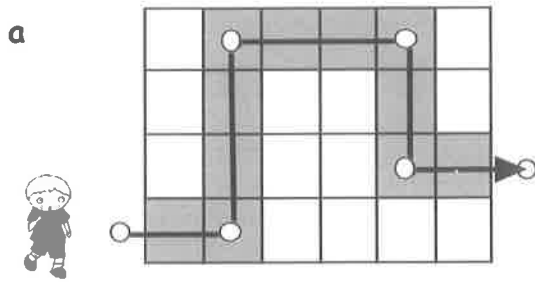
39. COPY each shape below onto squared paper.

Surround it with similar shapes to show how it tiles. (About 8 tiles should do).



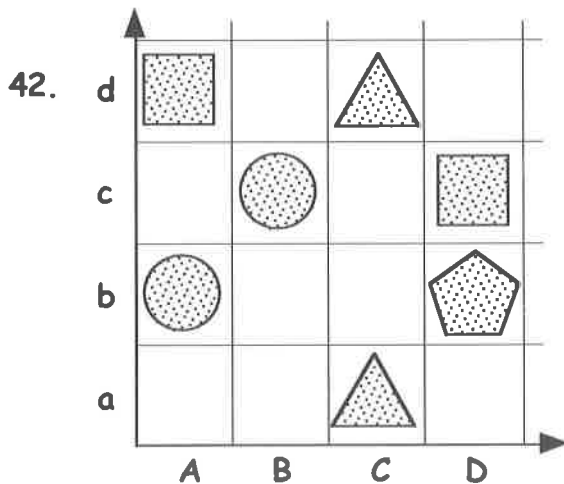
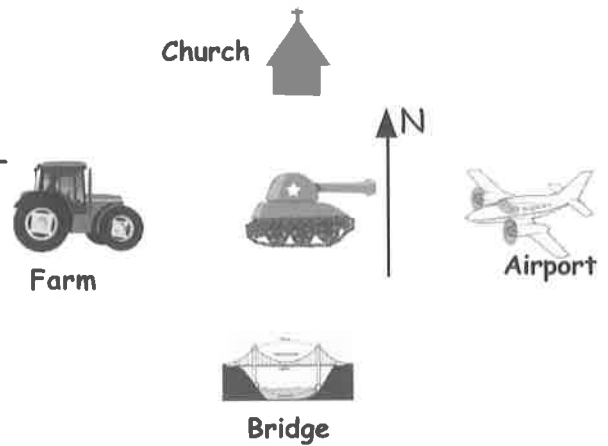
40. Andy and Sophie walk through a playground which has child safe sponge slabs. They each take a particular route across the playground.

Describe the journey each makes. (Use *turn left, turn right, forward ...*).



41. An army tank is on an exercise.
From the tank, what do I see if I look :-

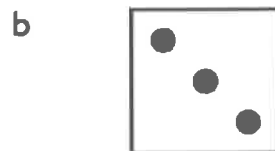
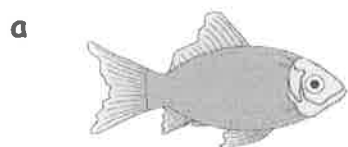
- a North b East
c South d West ?



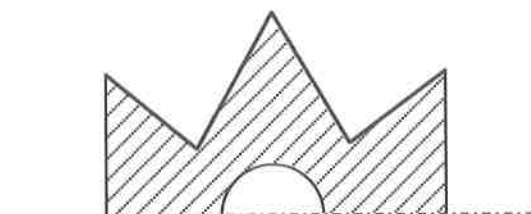
This grid shows different shapes.

- a What shape is at :-
(i) Ca (ii) Ad (iii) Bc ?
b Describe where the pentagon is.
c Aa and Ba are empty spaces.
Write down all the other empty spaces.


43. Which of the shapes below are symmetrical ?

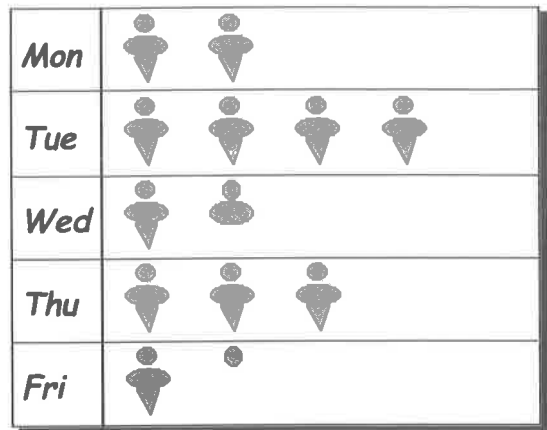


44. Copy or trace this shape.
Draw the other half of this figure below the dotted line so that it becomes symmetrical.



45. The pictograph shows the number of pupils who bought a bottle of water at lunchtime. (Remember to look at the key first).

Key:  stands for 3 pupils.



- a How many pupils bought water on :-
 - (i) Monday (ii) Tuesday
 - (ii) Wednesday (iii) Friday ?
- b How many bottles were bought in total ?
- c How many **more** pupils bought water on Tuesday than on Friday ?

46. This holiday table shows the prices for each adult and each child. How much would it cost for each of the following holidays :-



	One week		Two weeks	
	Adult	Child	Adult	Child
<i>France</i>	£159	£89	£179	£99
<i>Spain</i>	£179	£79	£199	£109

- a France, 1 adult for 2 weeks ?
- b Spain, 2 adults for 2 weeks ?
- c France, 2 adults and 1 child for 1 week ?
- d Mr Starkey, his wife and 4 children for two weeks in Spain ?

47. A six sided dice is thrown 24 times and the results recorded as shown.

4	3	2	4
3	5	3	1
4	1	4	2
3	2	3	4
4	5	4	3
2	4	6	4



Number	Tally Marks	Total
1		
2		
3		
4		
5		
6		

COPY the table and use tally marks to **complete** it.

48. Choose from :- **Impossible** - **Unlikely** - **Even Chance** - **Likely** - **Certain** to answer these questions on probability :-

- a When my dad drives to a T-Junction, he will turn left.
- b I flew to Spain and it only took 10 minutes.
- c If I throw a six sided dice I will throw a 5.

