NAME: _____

GRADE: _____

SECOND TERM MATHS SYLLABUS

GRADE 4

SYLLABUS	INSTAMATHS	WKSHEET
Tables (multiplying)	18; 20; 23; 5;	
Tables (patterning)	30	
Tables (dividing)	19; 21; 24;	
Long multiplication by 1 digit	31; 32;	
Long multiplication by 2 digits	33	
Tables (multiply and divide)	22;	
Multiplication by 10, 100, 1000	26; 27;	4, 5
Zeros in multiplication	28	
Traditional multiplication		6, 7
Dividing by 10 and 100	29;	8
Short Division	35; 36	9, 10
The 4 operations	37	
Word Problems	38	
Key words for mental maths		3
MEASUREMENT (Time)		
Measuring Time		11
24 hr clock showing am and pm	83; 85; 86	12
Converting Time		13
Hours and Minutes/Bus time table		14
Using a Calender	55; 56	15
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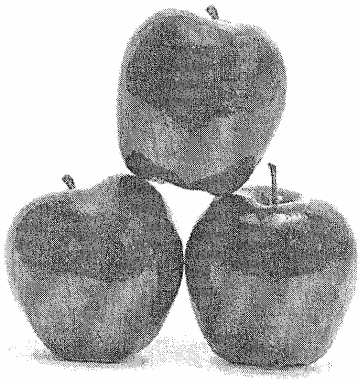
Speed, Distance and Time	89	
GRAPHS: see Graph worksheet		

ADDITION AND SUBTRACTION REVISION

KEY WORDS FOR ADDITION		KEY WORDS FOR SUBTRACTION	
add	Add 3 to 4 and you get 7	decrease	If you decrease 8 by 5 you get 3
altogether	3 and 4 make 7 altogether	difference	The difference between 8 and 5 is 3
increase	If you increase 3 by 4 you get 7	fewer than	3 is 5 fewer than 8
more	7 is 3 more than 4	Less than	3 is 5 less than 8
plus	3 plus 4 is 7	minus	8 minus 5 is 3
sum	The sum of 3 and 4 is 7		
total	The total of 3 and 4 is 7		



KEY WORDS FOR MULTIPLICATION		KEY WORDS FOR DIVISION	
factors	3 and 4 are factors of 6. One number is a factor if it divides or goes into another number exactly.		
divisible	6 is divisible by 3. 7 is not exactly divisible by 3.	divisible	6 is divisible by 3. 7 is not exactly divisible by 3.
Groups of	2 groups of 2 make 4	Groups of	There are 3 groups of 2 in 6
Lots of	2 groups of 2 make 4	divide	If you divide 6 by 3 you get 2.
Multiple	4 is a multiple of 2	Left over/ remainder	If you divide 7 by 3 the answer is 2 with 1 left over.
Multiply	Multiply 2 by 2 and you get 4	Share	If you share 6 toffees between 3 people, each person gets 2.
Product	The product of 2 and 2 is 4		
Sets of	2 sets of 2 make 4		
Times	2 times 2 is 4		

MULTIPLYING BY 10, 100 AND 1000

Multiplying by 10

When you multiply by 10 you **move all the digits one place to the left** and then numbers become 10 times bigger. Remember to **add a zero** in the empty place.

For example: 25 x 10 = 25**0**

Remember: If you multiply a number by 10 the answer is the same number with **one zero** at the end.

Multiplying by 100

When you multiply by 100 you **move all the digits two places to the left** and then numbers become 100 times bigger. Remember to **add two zeros** in the empty places.

For example: 25 x 100 + 2 5**00**

Remember: If you multiply a number by 100, the answer is the same number with **two zeros** at the end.

Multiplying by 1000

When you multiply by 1 000 **you move all the digits three places to the left** and then numbers become 1 000 times bigger. Remember to add **three zeros** in the empty places.

For example: 25 x 1 000 = 25 **000**

Remember: If you multiply a number by 100, the answer is the same number with **three zeros** at the end.

FACTS ABOUT MULTIPLICATION

MULTIPLICATION IS REPEATED ADDITION. IT IS A FAST WAY OF ADDING A SERIES OF NUMBERS TOGETHER.

3 x 5 means to add 3 together 5 times eg 3 + 3 + 3 + 3 + 3

WHEN YOU MULTIPLY IT DOES NOT MATTER WHICH NUMBER IS FIRST WHEN YOU WRITE THE PROBLEM. THE ANSWER IS ALWAYS THE SAME.

3 x 5 = 5 x 3

ANY NUMBER MULTIPLIED BY O IS ALWAYS 0.

0 x 3 = 0 7 x 0 = 0

EXERCISES IN MULTIPLYING BY 10, 100 AND 1000

Worked example:
761 people attend a concert. They each pay R10 for a ticket. What is the total amount in ticket sales?

Solution:
761 people each pay R10, so we multiply 761 by 10. The answer is R 7 610

Exercise 1

(a)	**3 x 10**	**_____**	**(b)**	**123 x 10**	**_____**
(c)	**2347 x 10**	**_____**	**(d)**	**34 x 100**	**_____**
(e)	**234 x 100**	**_____**	**(f)**	**5632 x 100**	**_____**
(g)	**3 X 1000**	**_____**	**(h)**	**65 x 1000**	**_____**
(i)	**877 x 1000**	**_____**	**(j)**	**4568 x 1000**	**_____**

Exercise 2

a) ***12 people each buy 10 tins of beans. How many tins do they buy in total?***

Number sentence: _____ ***Answer:*** _____

b) **13 people each invest R100 into a company. What is their total investment?**

Number sentence: _____ ***Answer:*** _____

c) ***1000 stores each order 256 cartons of orange juice. How many cartons do the company need to produce to meet these orders,***

Number sentence: _____ ***Answer:*** _____

d) **In a class of 24 boys, each boy has 10 marbles. How many marbles does the entire class have altogether?**

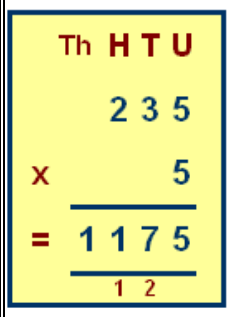
Number sentence:_____ ***Answer:*** _____

e) **If Mr Goedhals saves 236 cents a day over 1000 days, how much money will he have at the end of his saving period?**

Number sentence: _____ **Answer:** _____

TRADITIONAL MULTIPLICATION

Have a look at how the sum 235 x 5 can be worked out using this method.



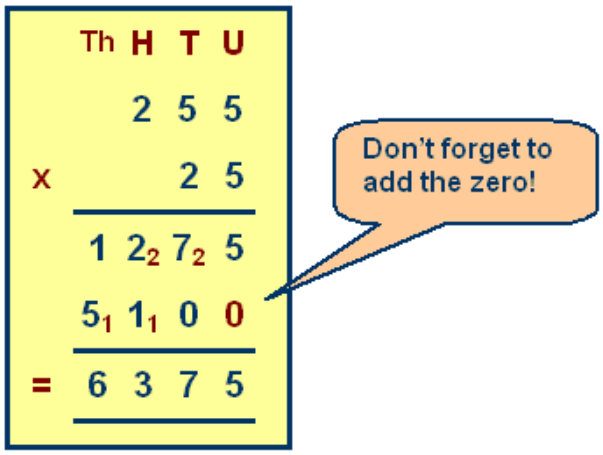
Step 1: 5 x 5 = 25.
Put the 5 in the units column, and carry the 2 to the tens.

Step 2: 3 x 5 = 15. Add the 2 makes 17.
7 goes into the tens column and carry the 1 to the hundreds column.

Step 3: 5 x 2 = 10. Add the carried 1 makes 11.
235 x 5 = 1 175

Remember to line up the units, tens and hundreds underneath each other.

Now have a look at the sum: 255 x 25



First, multiply 255 by the unit digit 5.

Step 1: 5 x 5 = 25.
Put the 5 in the units column, and carry the 2 to the tens.

Step 2: 5 x 5 = 25. Add the 2 makes 27.
7 goes into the tens column and carry the 2 to the hundreds column.

Step 3: 5 x 2 = 10. Add the carried 2 makes 12.

Then multiply 255 by the tens digit 2.
Remember to add a zero first when multiplying the tens.

Step 1: 2 x 5 = 10.
Put the 0 in the tens column, and carry the 1 to the hundreds.

Step 2: 2 x 5 = 10. Add the carried 1 makes 11.
1 goes into the hundreds column, with 1 carried to the thousands.

Step 3: 2 x 2 = 4, add the carried 1 makes 5. The total is 5 100.

Finally, add down the columns down to get the total.

255 x 25 = 6 375

Remember:
Keep the numbers in columns - units, tens, hundreds etc.
When multiplying the tens digit add a zero first.

MULTIPLICATION EXERCISES

EXERCISE 1

1. 45 x 5	**3. 345 x 2**
2. 64 x 4	**4. 273 x 8**

EXERCISE 2

1. 78 x 53	**3. 54 x 37**
2. 45 x 42	**4. 67 x 28**

EXERCISE 3

1. 341 x 56	**3. 536 x 66**
2. 523 x 34	**4. 642 x 32**

EXERCISE 4

1. 2 436 x 23	**4. 6 432 x 31**	**7. 3 264 x 12**
2. 1 564 x 14	**5. 4 639 x 27**	**8. 4 687 x 11**
3. 3 143 x 35	**6. 1 043 x 29**	**9. 6 832 x 77**

PROBLEM SOLVING

1. A hotel ordered 347 bags of potatoes. If there were 45 potatoes in each bag, how many potatoes were ordered?

2. A gardener planted 239 trays of pansies. Each tray had 23 pansies in them. How many pansies did he plant?

3. A banana tree had 534 bunches of bananas on them. How many bananas were there on the tree if there were 34 bananas in each bunch?

4. I ordered 142 pizzas and cut them into 14 pieces. How many pieces did I have altogether?

DIVIDING BY 10 and 100

Dividing by 10

When you divide by 10 you **move all the digits one place to the right** and then numbers become 10 times smaller. **If the number ends with a zero you can simply remove it.**

For example: 250 ÷ 10 = 25

Dividing by 100

When you divide by 100 you **move all the digits two place to the right** and then numbers become 100 times smaller. them **If the number ends with two zeros you simply remove them.**

For example: 2 500 ÷100 = 25

EXERCISE 1

1. 5 100 ÷10 =	2. 1 100 ÷ 10 =	3. 1 630 ÷10 =	4. 7 040 ÷10 =
5. 1 900 ÷ 10 =	6. 2 140 ÷ 10 =	7. 8370 ÷10 =	8. 1970 ÷10 =

EXERCISE 2

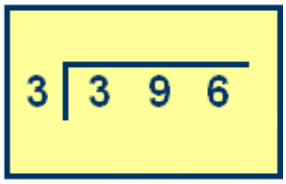
1. 5 100 ÷100 =	2. 1 100 ÷ 100 =	3. 17 300 ÷100 =	4. 73 000 ÷100 =
5. 16 800 ÷ 100 =	6. 3 100 ÷ 100 =	7. 81 200 ÷100 =	8. 14 900 ÷100 =

12 ÷ 2	14 ÷ 14
12 ÷ 1	14 ÷ 7
13 ÷ 13	14 ÷ 2
13 ÷ 1	14 ÷ 1

SHORT DIVISION: METHOD

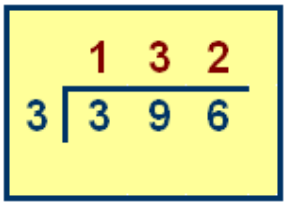
Large numbers are difficult to divide, because we don't learn the times tables for them. This is the traditional way of doing a division sum.

396 ÷ 3 can be written like this:



To work out this sum, divide 3 into 396 one digit at a time, starting from the left (with the digit 3).

Put the result of each division on top of the line.

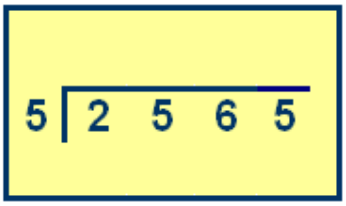


The 3 goes into 3, 1 time exactly. **3 goes into 9, 3 times** **3 goes into 6, 2 times**

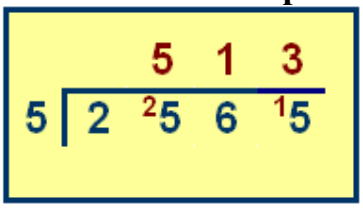
396 ÷ 3 = 132

But what if the numbers don't divide exactly? This is where you carry numbers.

2 565 ÷ 5 can be written like this:



To work out this sum, divide 5 into 2 565 one digit at a time, starting from the left (with the digit 2). Put the result of each division on top of the line.



The 5 into 2 won't go so you carry the 2 **5 into 25 goes 5 times exactly**
5 into 6 goes once with 1 remainder **5 into 15 goes 3 times exactly**

2 565 ÷ 5 = 513

SHORT DIVISION

Set out your sums as you have been shown.

EXERCISE 1

1. 429 ÷ 3	2. 303 ÷ 3	3. 180 ÷ 6	4. 282 ÷ 2
5. 100 ÷ 5	6. 260 ÷ 4	7. 141 ÷ 3	8. 400 ÷ 5
9. 360 ÷ 6	10. 720 ÷ 12	11. 225 ÷ 9	12. 360 ÷ 6

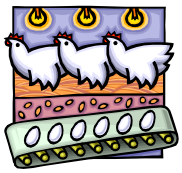
EXERCISE 2

1. 175 ÷ 7	2. 440 ÷ 4	3. 220 ÷ 10	4. 410÷ 5
5. 540 ÷ 6	6. 148 ÷ 4	7. 450 ÷ 9	8. 200 ÷ 8
9. 234 ÷ 9	10. 459 ÷ 3	11. 462 ÷ 6	12. 188 ÷ 2

EXERCISE 3 (WITH REMAINDERS)

1. 168 ÷ 7	2. 430 ÷ 4	3. 342 ÷ 10	4. 217÷ 5
5. 531 ÷ 6	6. 151 ÷ 4	7. 471 ÷ 9	8. 214 ÷ 3

PROBLEM SOLVING



1. I have 480 cm of ribbon. How many 6 cm lengths can I get from it?

2. I have 528 egg boxes. If I put 6 eggs into each box, how many egg boxes would I use?

3. I have R320 and tickets for a show cost R8 each? How many tickets can I buy?

4. There are 148 children in grade 4. How many teams of 5 can they make?

MEASURING TIME

We can measure time in seconds, minutes, hours, days, weeks, fortnights, months, seasons, years, decades, centuries and millennia. You need to understand these units of measurement and know when to use each one.

Seconds - used for measuring a short length of time such as a quick sprint.

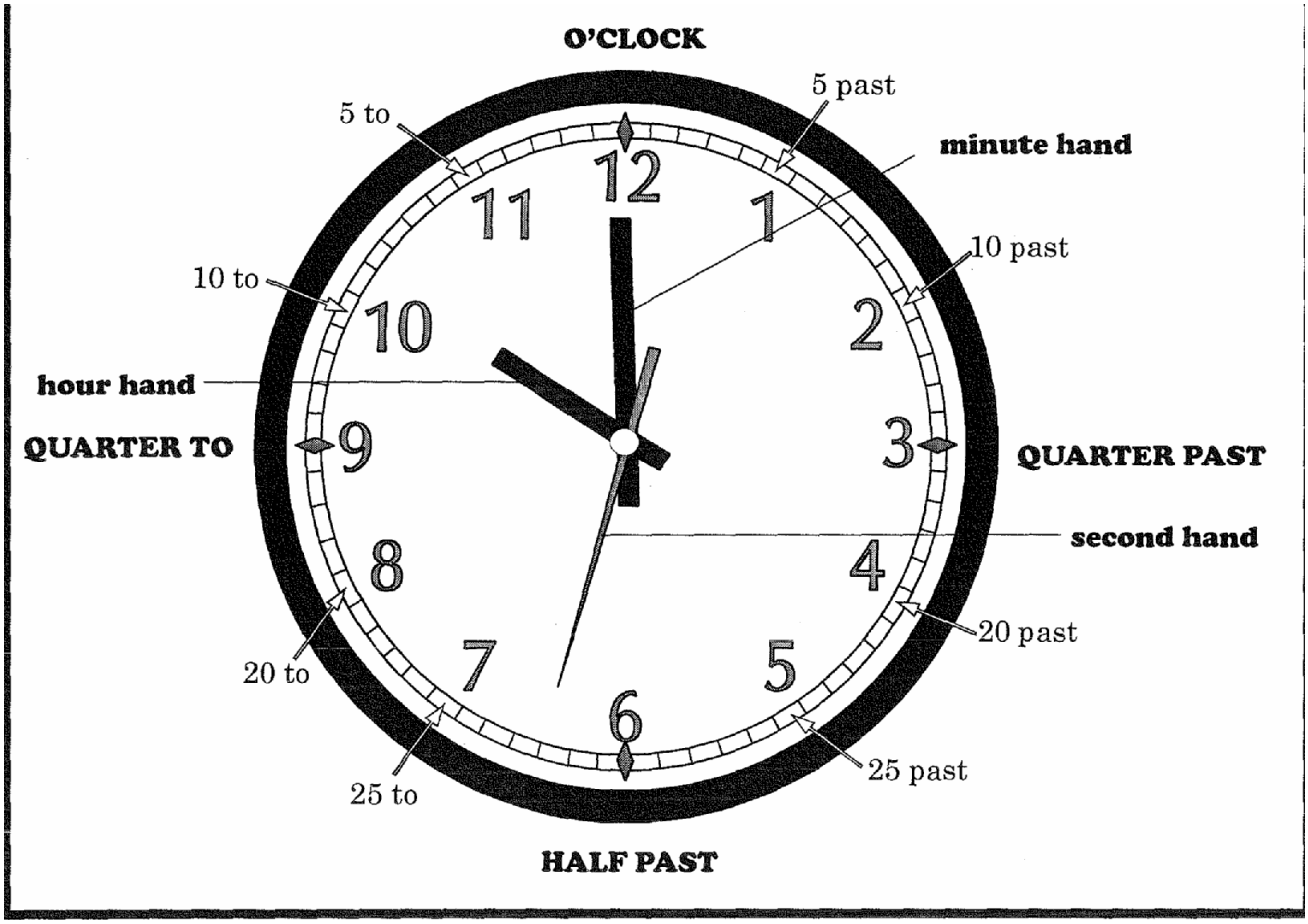
Minutes - used for measuring time that is quite short, but likely to be longer than 60 seconds such as a bus journey to school.

Hours - used for measuring longer periods of time, such as how many hours you have to work in a day or a week.

TYPES OF CLOCKS

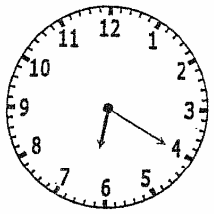
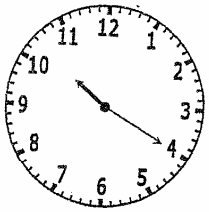
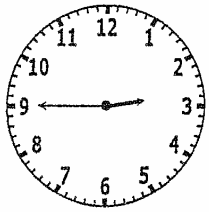
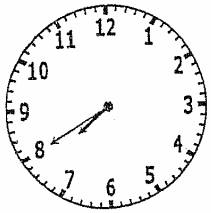
A DIGITAL CLOCK

AN ANALOGUE CLOCK

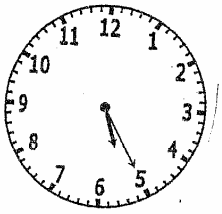
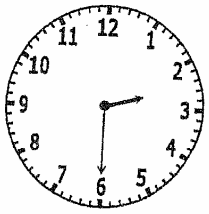
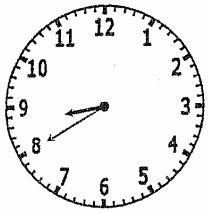
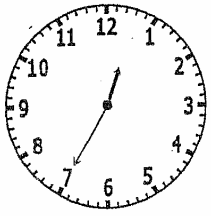


TIME: 24 HOUR CLOCK SHOWING AM AND PM

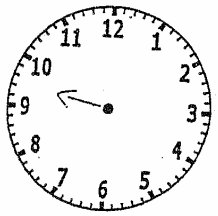
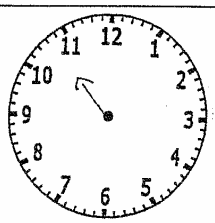
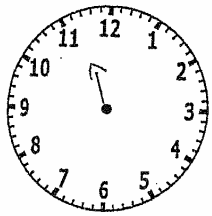
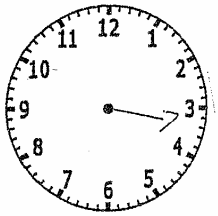
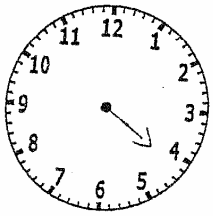
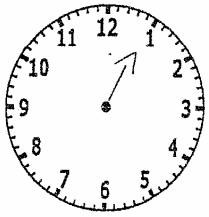
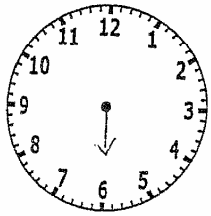
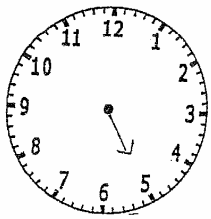
Fill in the evening time on this 24 hour clock. I have given you the morning time.

 6:20	 10:20	 02:45	 07:40

Fill in the morning time on this 24 hour clock. I have given you the evening time.

 17:25	 14:30	 20:40	 00:35

DRAW THE MINUTE HAND TO SHOW THE CORRECT TIME

 9:30	 10:50	 11:40	 3:35
 4:25	 12:55	 6:10	 5:05

CONVERTING TIME

There are two major ways to show the time: "AM/PM" or "24 Hour Clock".

With the 24 hour (digital) clock the time is shown in hours and minutes from midnight.

With am/pm or 12 hour (analogue) clock the day is split into the 12 hours running from midnight to noon (the am hours) and the other 12 hours running from noon to midnight (the pm hours).

Time in words	24 hour clock (digital clock)	12 hour clock (analogue clock)
1. seven o'clock in the evening	19:00	07:00 pm
2. quarter to ten in the morning		09:45 am
3. twenty past two in the afternoon	14:20	
4. quarter past ten in the evening	22:15	
5. midnight		00:00 am
6. midday	12:00	
7. quarter past two in the morning		02:15 am
8. half past eleven in the evening	23:30	
9. quarter past eight I the morning	08:15	
10. quarter to 7 in the morning		06:45 am
11. twenty past seven in the morning	07:20	
12. quarter past nine in the evening		09:15 pm
13. quarter to nine in the evening		08:45 pm
14. half past ten in the morning	10:30	
15. ten past seven in the evening		01:40 pm

HOURS AND MINUTES/BUS TIME TABLE

1 hr = 60 mins; ¾ hr = 45 mins; ½ hr = 30 mins; ¼ hr = 15 mins;
1 min = 60 secs

Complete the following…

1 hour = 60 mins		
2 ½ hours =	mins	
3 hours and 57 mins =		mins
4 ¾ hours =	mins	
5 hours and 33 mins =		mins
6 ¼ hours =	mins	

Write the following as hours and minutes.

330 mins = _____ hours _____ minutes

260 mins = _____ hours _____ minutes

470 mins = _____ hours _____ minutes

205 mins = _____ hours _____ minutes

BUS TIMETABLE

DESTINATION	BUS
Cape Town	9:00am
Somerset West	10:15am
Worcester	11:00am
Caledon	1:45pm
Mossel Bay	2:10pm

1. How long does it take to get from Cape Town to Somerset West?	
2. How long does it take to go from Caledon to Mossel Bay?	
3. How long does it take to get from Somerset West to Worcester?	
4. How long does it take to get from Cape Town to Worcester?	
5. How long does it take to get from Worcester to Mossel Bay?	

USING A CALENDER

1. What date is your birthday?	
2. What day is your birthday on this year?	
3. How many Sundays are there in August?	
4. How many Fridays are there in January?	
6. How many days are there in April?	
7. Which is the shortest month?	
8. Besides January, March, May, August, October and December which month has 31 days?	
9. How many full weeks are there in each month?	
10. How many months is it from 1st April to 1st December?	
11. What will the date be 2 weeks from today?	
12. What day is Christmas Day on this year?	
13. Andrew went on holiday for 3 weeks. She came back on 13th August. When did she go?	
14. What will the date be 2 weeks after December 28th.	
15. Write the following date in words: ie 2nd November 2009-01-24 a) The third Wednesday in January.	
16. Write the following date in numbers: ie 17/11/09 a) The second Tuesday in April.	

TIME QUIZ

1	How many seconds are there in a minute?	
2	How many hours are there in a day?	
3	How many days are there in a week?	
4	How many days are there in a year?	
5	How many weeks are there in a year?	
6	How many months are there in a year?	
7	Which month comes after March?	
8	Which is the 8th month of the year?	
9	Which month comes before November?	
10	Which month changes the number of days it has in it if it is a leap year?	
11	Which is the 6th month of the year?	
12	How many minutes have passed in a quarter past the hour?	
13	How many minutes have passed if it is half past the hour?	
14	How many minutes have passed if it is quarter to the hour?	

PROBLEMS

1	Sue got on the bus at 9 o' clock. The journey took half an hour. What time did she get off the bus?	
2	Playtime started at quarter past ten. It finished at quarter to eleven. How long was playtime?	
3	Grade 4 got on the school bus at five to 11. They arrived at the centre at half past twelve. How long was the bus journey?	
4	The children sat down to watch a film at quarter to five. It lasted an hour and a half. What time did the film end?	
5	Mary went into a shop at 10:30. She came out t 10:45. How long was she in the shop?	
6	James walked from 09:45 am till 10:15 pm. For how many minutes did he walk?	
7	Mark got into the pool at 03:30 pm. He swam for 40 minutes. What time did he get out?	
8	Lunch takes 50 minutes. It ends at 01:00 pm. What time did it start?	