MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
MARCH 2016	**1** Write 360 as a product of its prime factors. $2^3 \times 3^2 \times 5$	**2** Work out: $\frac{2}{7} \times \frac{1}{3} = \frac{2}{27}$	**3** An adult train ticket costs £24. During March there is one third off the price $\frac{1}{3} = £8$ How much does an adult ticket cost? $24-8 = £16$	**4** Work out: $\frac{3}{5} - \frac{1}{3} = \frac{4}{15}$	**5** 50 people each did one activity at a sports centre. They either went swimming, played squash or went to the gym. 21 of the people were female. 6 of the 8 people who played squash were male. 18 of the people used the gym. 9 males went swimming. Work out the number of females who used the gym. 4	**6**
7 Draw an ordered stem & lead diagram of these numbers: 20 15 19 23 22 11 18 17 18 27 25 12	**8** (INCLUDE A TIMESCALE!) Design a questionnaire to find out how many books people buy. How many books do you buy a month? $0 \square$ $1-2 \square$ $3-4 \square$ $5+ \square$	**9** Expand 2m(m + 3) $2m^2 + 6m$	**10** Work out 2.34 x 37 without a calculator 86.58	**11** What is the range of these numbers? 34 15 28 23 22 $\boxed{40}$ 16 19 $\boxed{3}$ 29 $40-3 = 37$	**12** What is the area of this shape? $16 \times 6 = 96$ $4 \times 7 = 28$ $96 + 28 = 124$ $96 m^2$ $124 m^2$ 4 28	**13**
14 2 pints = 59p $\frac{.59}{1.18}$ 6 pints = $\frac{1.77}{.174}$ A 4 pint bottle of milk costs £1.18 A 6 pint bottle of milk costs £1.74 Which bottle of milk is the best value for money? 6 pint bottle.	**15** Write 27.000 in standard form 2.7×10^4	**16** 10% = 1.20 50% = £6 An childrens train ticket costs £12. During March there is 60% off the price. £7.20 How much does a childs ticket cost? $12 - 7.20 = £4.80$	**17** Simplify $a^7 \times a^4$ a^{11}	**18** Expand (x + 4)(x + 3) $x^2 + 3x + 4x + 12$ $x^2 + 7x + 12$	**19** Buses to Acton leave a bus station every 24 minutes. Buses to Barton leave the same bus station every 20 minutes. A bus to Acton and a bus to Barton both leave the bus station at 9 00 am. When will a bus to Acton and a bus to Barton next leave the bus station at the same time? 11am	**20**
21 Simplify $a^6 \div a^3$ a^3	**22** Expand $2p^3(p - 2p^2)$ $2p^4 - 4p^6$	**23** Work out 127 x 3.8 without a calculator 482.6	**24** What is the median of these numbers? 13 21 19 27 31 5 23 29 18 25 22	**25** Write 0.000506 in standard form 5.06×10^{-4}	**26** Use trial and improvement to solve this problem. $x^3 + x^2 = 100$ Give your answer to 1 decimal place. $x = 4.3$	**27**
28 Factorise $4x^3 - 12x^2$ $4x^2(x-3)$	**29** Work out £4.97 x 12 without a calculator $£59.64$	**30** Write 525 as a product of its prime factors. $3 \times 5^2 \times 7$	**31** Simplify $(a^7)^2$ a^{14}	**NEXT UP: APRIL ...** **REMEMBER:** The best way to revise maths is to "do Maths"!		

1.

360
├ 2
└ 180
  ├ 2
  └ 90
    ├ 2
    └ 45
      ├ 5
      └ 9
        ├ 3
        └ 3

4.

$$\times 3 \Big(\frac{3}{5} - \frac{1}{3} \Big) \times 5$$
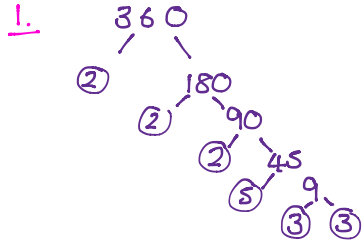
$$\frac{9}{15} - \frac{5}{15}$$

$$\frac{4}{15}$$

5/6

	Swim	Squad	Gym	Total
Female	15	2	(4)	21
Male	9	6	14	29
Total	24	8	18	50

7.

| 1 | 5 9 1 8 7 8 2 |
| 2 | 0 3 2 7 5 |

ordered

| 1 | 1 2 5 7 8 8 9 |
| 2 | 0 2 3 5 7 |

Key
2 | 0 = 20

19.

24 Acton	20 Baton
9:00	9:00
9:24	9:20
9:48	9:40
10:12	10:00
10:36	10:20
(11:00	10:40
	11:00)

24. 5 13 18 19 21 23 25 27 29 31

26.

x	$x^3 + x^2 = 100$	comment
2	$2^3 + 2^2 = 12$	too small
3	$3^3 + 3^2 = 36$	too small
5	$5^3 + 5^2 = 150$	too big
4	$4^3 + 4^2 = 80$	too small
4.5	$4.5^3 + 4.5^2 = 111.375$	too big
(4.4)	$4.4^3 + 4.4^2 = 104.544$	too big
4.3	$4.3^3 + 4.3^2 = 97.997$	too small
4.35	$4.35^3 + 4.35^2$	too big

$$= 101.235375$$

$$\underline{x = 4.3}$$

30.

525
├ 5
└ 105
  ├ 5
  └ 21
    ├ 3
    └ 7