Revision Sheet 5P1 Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

1. Write the following number in words: 96 712 201 500 000

   . . . . . .

2. Which of the following is not a factor of 20? 10, 20, 40 . . . . . .

3. Find (a) $\frac{5}{8}$ of 96 . . . . . (b) 70% of 2000 . . . . . .

4. (a) $-4 \times -8 =$ . . . . . (b) $5 - -8 =$ . . . . . (c) $-3 + -6 =$ . . . . . .

5. * Jess got paid $2000. 40% of her pay went on a mortgage repayment and 25% went on food. She spent $\frac{3}{5}$ of what was left on other things. How much did she save? . . . . . .

6. * Wally Pope, the jeweller, bought a ring and marked it up 150% to sell at $1750. How much did he pay for it?. . .

7. * (a) $\frac{2}{3} - \frac{1}{4} =$ . . . . . (b) $2\frac{1}{2} \times 3\frac{2}{5}$

8. * Josie thought of a number, multiplied it by 7, then subtracted 2, then divided by 2. This gave her 41. What number did she start with? . . . . . .

9. Write the words that mean the following: (7Sb, 8Sc)

   (a) (of an angle) between 180° and 360° . . . . . (b) same shape. . . . . .

.

10. Draw an angle of 77°.

11. Complete the following table.

2 000 000 cm^2	m^2	ha	km^2
16 L	mL	cm^3	m^3

12. * Calculate the volume and surface area of a hemisphere with radius 8 m.

    Volume = ... Surface area = ...

13. * Find the distance between the points (–2, 5) and (4, 1) . . . . . .

14. The odds of Mrs Cook winning a race are 7 to 1 against.

    What is the probability that she will win? . . . . . .

15. Without a calculator, find (a) 3^4 . . . . . (b) 5^{-2}. . . . . (c) $4^{\frac{1}{2}}$ . . . . . (d) $32^{-0.2}$ . . . . .

Revision Sheet 5P2 Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

1. Complete: $^4/_7$ means ‘. . . . . .’

   and it means ‘. . . . . ’

2. Complete: 19% means ‘. . . . . .’

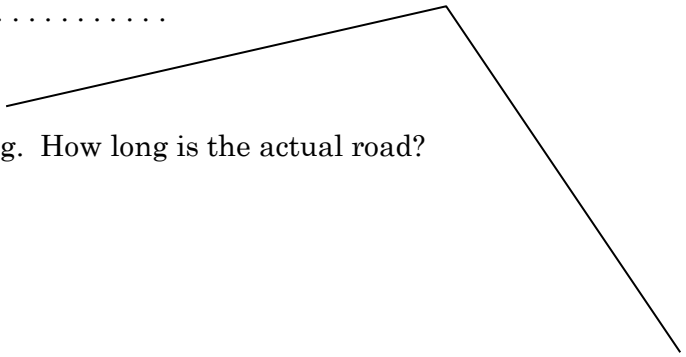
3. Complete: 5.04 means ‘. . . . . .’

   and it means ‘. . . . . .’

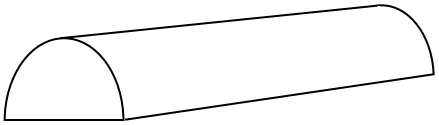
4. Write in scientific notation: 431 580 . . . . . 0.000 019 . . . . . .

5. Convert 9¾ to an improper fraction . . . . . .

6. Measure the angle to the right.



7. On a 1:100 000 map, a road is 7 cm long. How long is the actual road?



8. * Calculate the volume and surface area of this half cylinder with length 1.5 m and diameter 30 cm.

   volume . . . . . surface area . . . . . .

9. A road climbs at an angle of 9.5°. What is its gradient? . . . . . .

10. * If you tossed 4 coins, what would be the probability of getting two heads and two tails?

11. Complete the following table with ticks and crosses.

	29	$-3.3\dot{}$	π	$\sqrt{16}$	$\sqrt{-3}$	sin 5º	∞	3+2*i*	4.5731
Natural number									
Whole number									
Integer									
Rational number									
Irrational number									
Real number									
Imaginary number									
Complex number									

Revision Sheet 5P1 Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

12. Complete: $^4/_7$ means ‘. . . . . .’

and it means ‘. . . . . ’

13. Complete: 19% means ‘. . . . . .’

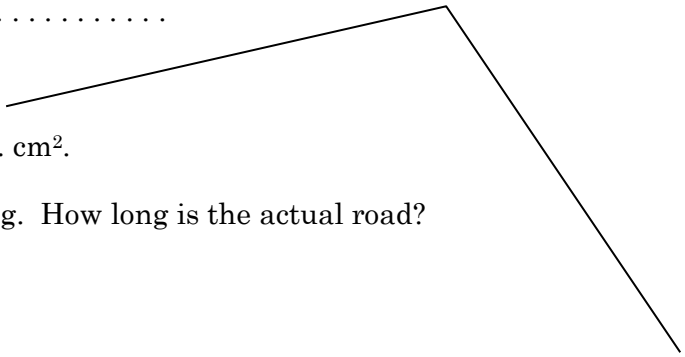
14. Complete: 5.04 means ‘. . . . . .’

and it means ‘. . . . . .’

15. Write in scientific notation: 431 580 . . . . . 0.000 019 . . . . . .

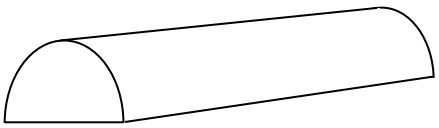
16. Convert 9¾ to an improper fraction . . . . . .

17. Measure the angle to the right.



18. 0.03 ha = ... m^2 = ... cm^2.

19. On a 1:100 000 map, a road is 7 cm long. How long is the actual road?



20. * Calculate the volume and surface area of this half cylinder with length 1.5 m and diameter 30 cm.

volume . . . . . surface area . . . . . .

21. A road climbs at an angle of 9.5°. What is its gradient? . . . . . .

22. * If you tossed 4 coins, what would be the probability of getting two heads and two tails?

23. * Solve $\frac{4}{x+5}-2=10$ . . . . . .

24. A meteor shower started at 2230 on Nov 4 and lasted 3 days 17 hours 40 minutes.

When did it finish? . . . . . .

25. A drink is made from cordial and water in the ratio 2:9.

What percentage of the drink is cordial? . . . . . .

26. * Brigitte bought a painting. She then sold it to Harold making a 24% profit. Harold sold it to Katie for $55 less than he paid for it. Katie then sold it to Jock for $480 which made her a profit of 8%. How much did Brigitte pay for the painting?

Revision Sheet S1a Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

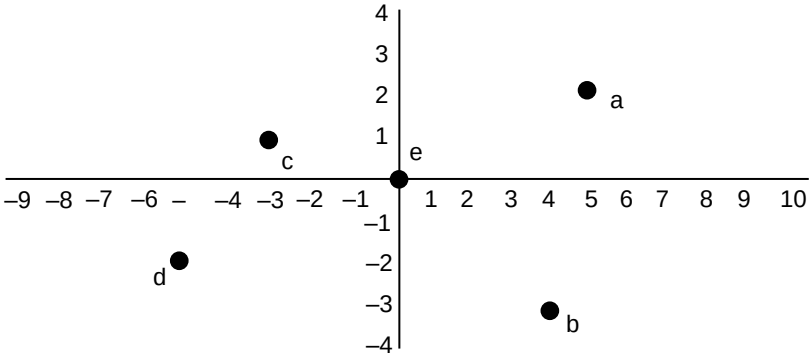
1. Write $^4/_5$ as a decimal fraction . . . . . and as a percent . . . . . .

2. Convert $^{32}/_5$ to a mixed number . . . . . .

3. Find the price of a \$160 dress after a 30% discount . . . . . .

4. Write in decimal notation: 2.1×10^3 . . . . . 5.18×10^{-5} . . . . . .

5. Give the coordinates of the points on the diagram below.



(a) . . . . . .

(b) . . . . . .

(c) . . . . . .

(d) . . . . . .

(e) . . . . . .

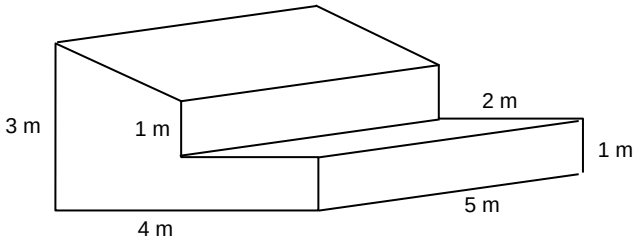
6. * Solve: $3(s + 2) – 9 + s = 2s + 1$

7. * Make b the subject of $a = \dfrac{4\sqrt{b-2}}{5} + 1$, then find b when $a = 6$ . . . . . .

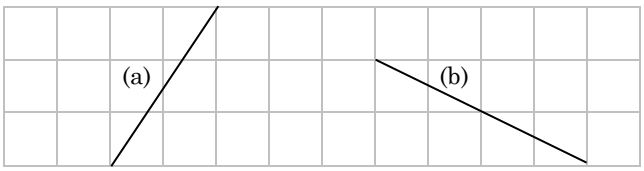
8. * If you invested \$4000 for 15 years at 7.2% p.a. compound interest, how much would you have at the end of the 15 years?

9. * Find the surface area of this shape

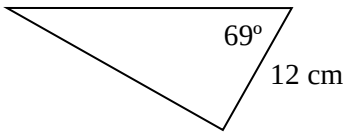
. . . . . .



10. Find the gradient of each of the following lines . . (a) . . . . . (b) . . . . . .



11. * Find all the unmarked sides and angles on this right-angle triangle.



Revision Sheet S2a Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

16. Write the following number in words: 96 712 201 500 000

. . . . . .

17. Which of the following is not a factor of 20? 10, 20, 40 . . . . . .

18. Find (a) $\frac{5}{8}$ of 96 . . . . . (b) 70% of 2000 . . . . . .

19. (a) $-4 \times -8 =$ . . . . . (b) $5 - -8 =$ . . . . . (c) $-3 + -6 =$ . . . . . .

20. * Jess got paid $2000. 40% of her pay went on a mortgage repayment and 25% went on food. She spent $\frac{3}{5}$ of what was left on other things. How much did she save? . . . . . .

21. * Wally Pope, the jeweller, bought a ring and marked it up 150% to sell at $1750. How much did he pay for it?. . .

22. * (a) $\frac{2}{3} - \frac{1}{4} =$ . . . . . (b) $2\frac{1}{2} \times 3\frac{2}{5}$

23. * Josie thought of a number, multiplied it by 7, then subtracted 2, then divided by 2. This gave her 41. What number did she start with? . . . . . .

24. Write the words that mean the following: (7Sb, 8Sc)

(a) (of an angle) between 180° and 360° . . . . . (b) same shape. . . . . .

.

25. Draw an angle of 77°.

26. Complete the following table.

2 000 000 cm^2	m^2	ha	km^2
16 L	mL	cm^3	m^3

27. * Calculate the volume and surface area of a hemisphere with radius 8 m.

Volume = ... Surface area = ...

28. * Find the distance between the points (–2, 5) and (4, 1) . . . . . .

29. The odds of Mrs Cook winning a race are 7 to 1 against.

What is the probability that she will win? . . . . . .

30. Without a calculator, find (a) 3^4 . . . . . (b) 5^{-2}. . . . . (c) $4^{\frac{1}{2}}$ . . . . . (d) $32^{-0.2}$ . . . . .

Revision Sheet B1a Name . . . . . .

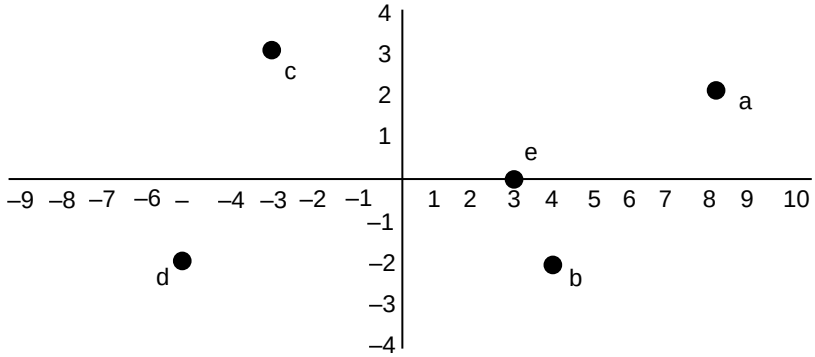
For the questions marked with a *, include working on the back of the sheet.

12. Write $^3/_5$ as a decimal fraction . . . . . and as a percent . . . . . .

13. Convert $^{27}/_7$ to a mixed number . . . . . .

14. Find the price of a \$160 dress after a 35% discount . . . . . .

15. Give the coordinates of the points on the diagram below. (8Sd)



(a) . . . . . .

(b) . . . . . .

(c) . . . . . .

(d) . . . . . .

(f) . . . . . .

16. * Solve: $5(s-2)-1+2s=3s+1$

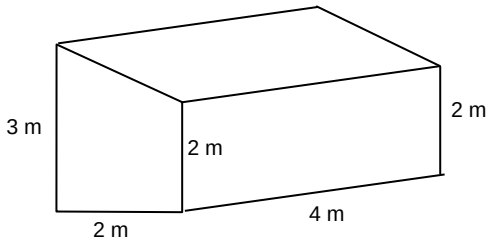
17. * Make b the subject of $a=\frac{4\sqrt{b-2}}{5}+1$, then find b when $a = 4$ . . . . . .

18. * If you invested \$600 for 5 years at 6.5% compound interest, how much would you have at the end of the 5 years?

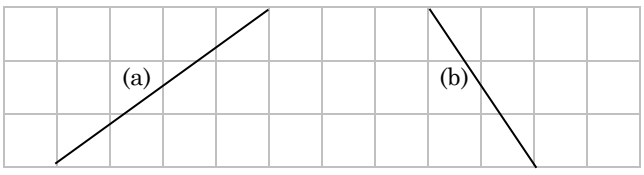
19. * Find the volume and surface area of this shape

Volume: . . . . . .

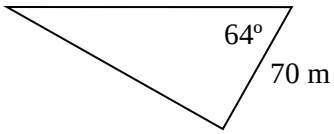
Surface area: . . . . . .



20. Find the gradient of each of the following lines . . (a) . . . . . (b) . . . . . .



21. * Find all the unmarked sides and angles on this right-angle triangle.



22. * Find θ $0 \le \theta \le 360°$ if $\cos\theta = -0.69$

Revision Sheet B1b Name . . . . . .

For the questions marked with a *, include working on the back of the sheet.

1. Complete this table with ticks where appropriate. (S1)

	0	31.4	$\sqrt{-4}$	3+2i	$\sqrt{6}$	cos 20º	$\sqrt{9}$	π	2.43˙
Natural number									
Whole number									
Integer									
Rational number									
Irrational number									
Real number									
Imaginary number									
Complex number									

2. Evaluate without a calculator (a) $4^{½}$ . . . . . (b) 5^{-4} . . . . . (c) $(10^3)^5$ . . . . . .

3. Simplify (a) $\dfrac{a^4b^3}{ab^{-2}}$ . . . . . (b) $\sqrt{((ab)^4)^3}$ . . . . . .

4. On the back of this sheet, draw a graph of $y = 3x + 2$ $x \in \mathrm{N}, -2 \le x \le 4$ (S3)

5. For each of the following relations, say whether it is a function

   (a) $y = 2^x + x^2$ . . . . . (b) $y^2 + x^2 = 16$ . . . . . .

6. * If $f(x) = 5(2x+2)^2$, find (a) $f(3)$ . . . . . (b) $f(x^2)$ . . . . . (c) $f(a-1)$ . . . . . .

7. Write the general form of each of the following families of functions:

   (a) linear . . . . . (b) quadratic . . . . . .

   (b) reciprocal . . . . . (d) exponential . . . . . .

8. Find the formula for the linear function with gradient 2 and which passes through (2, –5)

   . . . . . .

9. For the following data, find the best model quadratic function. Give the value of r.

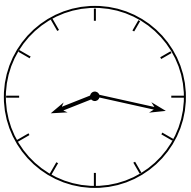
   . . . . . $r =$ . . . . . .

x	–2	–1	0	1	2	4
y	3.4	5.7	6.9	7.1	6.6	3.1

Name . . . . . Class . . . . . .

Review Sheet Level 4 Time, Chance and Data

Show working on the back of the sheet for the questions marked with a *.



1. What is the time to the nearest minute on this clock? . . . . . .

2. Write 12:27 a.m. in 24-hour time . . . . . .

3. Write 1725 in 12-hour time. Include a.m. or p.m. . . . . .

Look at the bus timetable below.

Queen St, Brisbane	6:35	7:05	7:30	7:50	8:05
Garden City, Mt Gravatt	6:53	7:23	7:48	8:08	8:23
Springwood Mall	7:02	7:32	7:57	8:17	8:32
Hyperdome, Loganholme	7:12	7:42	8:08	8:27	8:42
Main St, Beenleigh	7:25	7:55	8:20	8:40	8:55
Stapleton Garbage Tip	7:34	8:04	8:29	8:49	9:04

4. If you catch the 7:30 from Queen Street, what time should you arrive at the Hyperdome? . . . . . .

5. What time will it be 7 hours 15 minutes before 6:40 a.m.? . . . . . .

6. What is probability? . . . . . .

. . . . . .

7. What is the probability that you would get a head if you tossed a coin? . . . . . .

8. What is the probability of something which you know will not happen? . . . . . .

9. Carol looked up some rainfall records to find the probabilities of rain on her birthday, June 17. She found that in the past 80 years it had rained 13 times on June 17. Based on this, what is the probability that it will rain on June 17? . . . . . .

10. The probability of getting a 3 on an dodecahedral die is $^1/_{12}$.
If you roll it 60 times, how many 3s are you most likely to get? . . . . . .

For each of the next two questions, say whether symmetry can be used to find the probability required or whether we would have to use data. If symmetry can be used, calculate the probability.

11. A wooden regular octahedron has each of its 8 faces painted a different colour.
We drop it. We want to know the probability that it will land on its black face. . . . . .

12. The teacher throws a piece of chalk. We want the probability that it will land in the bin. . . . . .

13. What is the probability of getting a King or Queen if you pick a card from a pack of 52? . . . . . .

14. Katie is supposed to work Monday to Friday, but always takes one day off during the week. The probability of it being Monday is 0.4; the probability that it will be Tuesday is 0; the probability that it will be Wednesday is 0.3; the probability that it will be Thursday is 0.1. What is the probability that, this week it will be Friday? . . . . . .

These are Sarah's times in seconds for four 200 m sprints: 31, 33, 36, 36

15. Find the mean time . . . . . .

16. Find the median time . . . . . .

17. Find the mode of the times . . . . . .

18. Use the following table to find the tax for a pay of $400 per week . . . . . .

Pay per week ($)	0	100	200	300	400	500
Tax	0	12	42	85	116	155

19. Present the data in the table above as a line graph.

20. In Carnivore Street, 60% of the pets are dogs, 10% are cats, 20% are vultures and 10% are piranhas. Present this data as an approximately-drawn pie chart.

For each of the following, say whether the data is continuous, discrete or categorical.

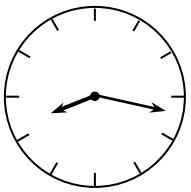
21. Students' favourite subjects . . . . . .

22. Masses of baby rhinoceroses . . . . . .

Answers

Review Sheet Level 4 Time, Chance and Data

Show working on the back of the sheet for the questions marked with a *.



1. What is the time to the nearest minute on this clock? . . . **8:17** . . . . .

2. Write 12:27 a.m. in 24-hour time . . . **0027** . . . . .

3. Write 1725 in 12-hour time. Include a.m. or p.m. . . . **5:25 p.m.** . . . .

Look at the bus timetable below.

Queen St, Brisbane	6:35	7:05	7:30	7:50	8:05
Garden City, Mt Gravatt	6:53	7:23	7:48	8:08	8:23
Springwood Mall	7:02	7:32	7:57	8:17	8:32
Hyperdome, Loganholme	7:12	7:42	8:08	8:27	8:42
Main St, Beenleigh	7:25	7:55	8:20	8:40	8:55
Stapleton Garbage Tip	7:34	8:04	8:29	8:49	9:04

4. If you catch the 7:30 from Queen Street, what time should you arrive at the Hyperdome? . . **8:08** . . . .

5. What time will it be 7 hours 15 minutes before 6:40 a.m.? . . . **11:25 p.m.** . . . .

6. What is probability? . . . **The fraction of times something will happen in the long run** . . . .

. . . . . .

7. What is the probability that you would get a head if you tossed a coin? . . . . **50%** . . . . .

8. What is the probability of something which you know will not happen? . . . **0** . . . . . .

9. Carol looked up some rainfall records to find the probabilities of rain on her birthday, June 17. She found that in the past 80 years it had rained 13 times on June 17. Based on this, what is the probability that it will rain on June 17? . . . . $^{13}/_{80}$ . . .

10. The probability of getting a 3 on an dodecahedral die is $^{1}/_{12}$.
If you roll it 60 times, how many 3s are you most likely to get? . . . . . **5** . . . . .

For each of the next two questions, say whether symmetry can be used to find the probability required or whether we would have to use data. If symmetry can be used, calculate the probability.

11. A wooden regular octahedron has each of its 8 faces painted a different colour. We drop it. We want to know the probability that it will land on its black face. . . **Symmetry** $^{1}/_{8}$.

12. The teacher throws a piece of chalk. We want the probability that it will land in the bin. . . . **Data** . . . .

13. What is the probability of getting a King or Queen if you pick a card from a pack of 52? . . . . $^{8}/_{52}$ . . . .

14. Katie is supposed to work Monday to Friday, but always takes one day off during the week. The probability of it being Monday is 0.4; the probability that it will be Tuesday is 0; the probability that it will be Wednesday is 0.3; the probability that it will be Thursday is 0.1. What is the probability that, this week it will be Friday? . . . . **0.2** . . . .

These are Sarah's times in seconds for four 200 m sprints: **31, 33, 36, 36**

15. Find the mean time . . . **34** . . . . . .

16. Find the median time . . . **34.5** . . . . . .

17. Find the mode of the times . . . **36** . . . . . .

18. Use the following table to find the tax for a pay of $400 per week . . . **$116** . . . . .

Pay per week ($)	0	100	200	300	400	500
Tax	0	12	42	85	116	155

19. Present the data in the table above as a line graph.

20. In Carnivore Street, 60% of the pets are dogs, 10% are cats, 20% are vultures and 10% are piranhas. Present this data as an approximately-drawn pie chart.

For each of the following, say whether the data is continuous, discrete or categorical.

21. Students' favourite subjects . **categorical** . .

22. Masses of baby rhinoceroses . . **continuous** .

Name . . . . . Class . . . . . .

Review Sheet Level 5 Algebra, Time

Show working on the back of the sheet for the questions marked with a *.

1. Write the following relation as a set of ordered pairs . . . . . .

   . . . . . .

Age	0	20	40	60	80
Life expectancy	28	42	61	71	84

2. From the relation above, find the life expectancy for a 20-year-old . . . . . .

3. In the relation above, which is the dependent variable? . . . . . .

4. How does one write a continuous relation as a sets of statement, as a set of ordered pairs, as a table?

   . . . . . .

5. Say whether the following relations has a pattern and, if it does, find the next ordered pair.

Age	0	10	20	30	40	50	60	70	80	90	100
Height	74	78	82	86	90	94	98	102	106	110	114

   . . . . . .

6. Harry is a vet. He charges for jobs according to the time taken. He uses the following formula: *charge* = 30 + 40 × *time*, where the *charge* in dollars and the *time* is hours.

   How much would he charge for a visit of 2 hours? . . . . . .

7. Find the formulae for this relation . . . . . .

Distance (km)	1	2	3	4	5
Fare ($)	5	7	9	11	13

8. It has been discovered that the number of passengers carried on a particular route is related to the number of buses that run per day. The number of buses can vary from 6 to 12. The relation can be expressed by the formula *number of passengers* = 50 + 15 × *number of buses*
   Express this relation as a table.

9. Are the following formulae equivalent? . . . . . .
   volume = 3 + 8 × *length* *volume* = (2 × *length* + 2) × 4 – 5

10. *distance travelled* = *initial speed* × *time* + ½ × *acceleration* × *time*^{2}
    Find the distance travelled if the acceleration is 10, the time is 5 and the initial speed is 30 . . . . . .

Answers

Review Sheet Level 5 Algebra, Time

Show working on the back of the sheet for the questions marked with a *.

1. Write the following relation as a set of ordered pairs . . **(0, 28), (20, 42), (40, 61), (60, 71), (80, 84)**

where the first number is the age and the second is the life expectancy . . . .

Age	0	20	40	60	80
Life expectancy	28	42	61	71	84

2. From the relation above, find the life expectancy for a 20-year-old . . . . **42 years** . . . . . .

3. In the relation above, which is the dependent variable? . . **life expectancy** . .

4. How does one write a continuous relation as a sets of statement, as a set of ordered pairs, as a table?

. . . . . **pick a sample of ordered pairs** . . . . . .

5. Say whether the following relations has a pattern and, if it does, find the next ordered pair.

Age	0	10	20	30	40	50	60	70	80	90	100
Height	74	78	82	86	90	94	98	102	106	110	114

. . . . . **yes, (110, 118)**. . . . . .

6. Harry is a vet. He charges for jobs according to the time taken. He uses the following formula:
charge = 30 + 40 × *time*, where the *charge* in dollars and the *time* is hours.

How much would he charge for a visit of 2 hours? . . . **$110**. . . . .

7. Find the formulae for this relation . . ***fare* = *distance* × 2 + 3** . . .

Distance (km)	1	2	3	4	5
Fare ($)	5	7	9	11	13

8. It has been discovered that the number of passengers carried on a particular route is related to the number of buses that run per day. The number of buses can vary from 6 to 12. The relation can be expressed by the formula *number of passengers* = 50 + 15 × *number of buses*
Express this relation as a table.

Number of buses	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Number of passengers	**140**	**155**	**170**	**185**	**200**	**215**	**230**

9. Are the following formulae equivalent? . . . **yes** . . . . . .
volume = 3 + 8 × *length* *volume* = (2 × *length* + 2) × 4 – 5

10. *distance travelled = initial speed* × *time* + ½ × *acceleration* × *time*^{2}
Find the distance travelled if the acceleration is 10, the time is 5 and the initial speed is 30 . . **275**. . . .

Homework Sheet 5.1

1. Continue these sequences:
   a) 4.6, 4.7, 4.8, ….., ….., ….., …..
   b) 2.45, 2.5, 2.55, 2.6, ….., ….., ….., …..
   c) 0.48, 0.46, 0.44, ….., ….., ….., …..
   d) 1.25, 1.4, 1.55, 1.7 ….., ….., ….., …..
   e) 8.7, 9.4, 10.1, 10.8, ….., ….., ….., …..

2. Shade the following fractions of each of these rectangles:

   a) ¾ of ☐ b) 0.3 of ☐

   c) 10% of ☐ d) 0.05 of ☐

   e) 95% of ☐ f) $^3/_5$ of ☐

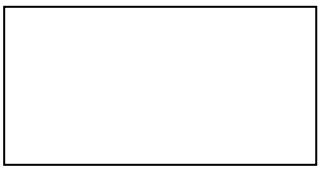
3. Do these without a calculator (in your head if you can)
   a) 100 – 47 …….. b) 624 – 40 …….. c) 90.5 + 37.7 …….. d) 23 × 5 ……..
   e) 120 ÷ 6 …….. f) 7.2 × 20 …….. g) 3.7 ÷ 2 …….. h) 6 × 2½ ……..

4. Find the 5th and 50th numbers in this sequence: 11, 14, 17, 20, ...

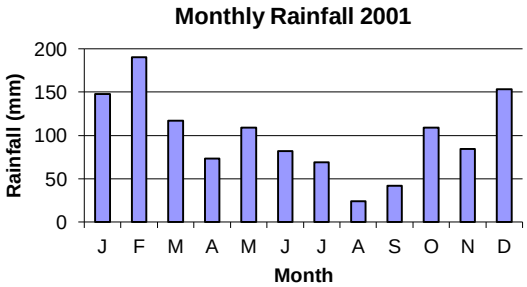
5. What number must the square be replaced by to make these statements true?
   a) ☐ + 8 = 13 …….. b) ☐ × 4 = 28 ……..
   c) ☐ – 4 = 0 …….. d) ☐ ÷ 3 = 9 ……..
   e) ☐ × 5 + 11 = 46 …….. f) ☐ ÷ 3 – 8 = 2 ……..

6. a) How many hours in 1½ days? ……..
   b) Write 1930 in 12-hour time ……..

7. a) Find the distance around the edge of this rectangle ……
   b) Find the area of the rectangle ……



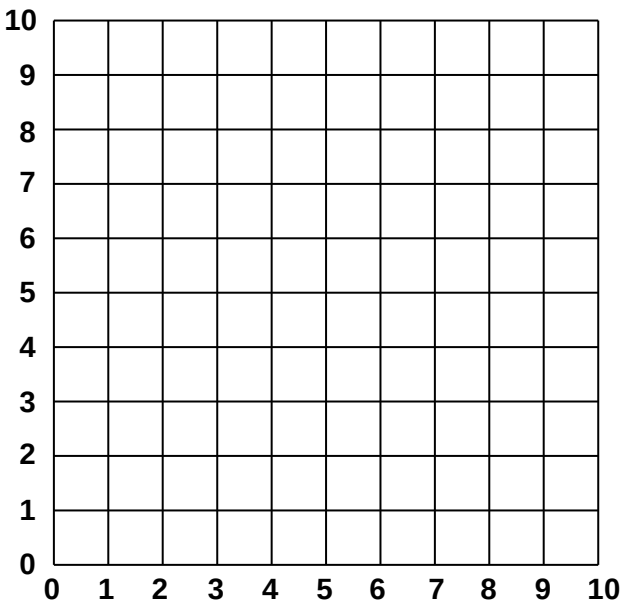
8. The graph shows rainfall for the different months in 2001at Blodden.



   a) What was the rainfall in March? ……..
   b) Which was the driest month? ……..
   c) What was the total rainfall for 2001? ……..

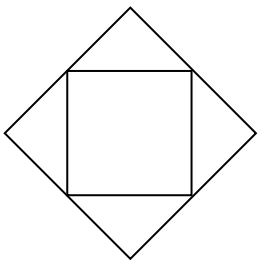
9. On the grid, plot the following points. Join each point to the previous one with a straight line.

   (3, 6) (5, 9) (6, 9) (4, 6) (4, 5)
   (6, 2) (5, 2) (3, 5) (1, 2) (0, 2)
   (2, 5) (2, 6) (0, 9) (1, 9) (3, 6)



10. Draw a net for a rectangular prism 10 cm by 2 cm by 1 cm

11. Explain why this cannot be a net for a square based pyramid.



12. Draw diagrams of all the different rectangles that can be made with 24 matches without breaking the matches? What is thew area of the largest one?

13. Five people are going to stand in a queue. In how many different orders can they stand? Explain your reasoning.

Revision Sheet 2R1 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K2. Write 95 447 005 000 in words.

1K6. Write $^3/_5$ as a decimal and as a percent.

1K12. Write 2^6 as a numeral.

1K13. Without a calculator, work out $2 + 6 \div 2$.

1K16. Without a calculator, work out $2.7 + 0.28$

1K17. If Nittella earns $144 for 6 hours work, what does she earn per hour?

1K11. This table shows the cost of packs of tennis balls with various numbers of balls.

Number of balls	1	2	3	5	8
Cost ($)	4.50	8.00	11.50	17.90	26.20

What is the independent variable?

Express the relation as a set of ordered pairs and as a graph.

1K4. The area of the average dinner table would be closest to (circle one):

1 mm^2 10 cm^2 500 cm^2 2 m^2 10 m^2 0.4 ha

1K10. (a) 50 cm = ... m (b) 20 000 g = ... t (c) 0.5 L = ...cm^3

1K15. *For these scores: 9, 4, 8, 6, 10, 5, 8, 5, 7, 8

(a) the mean is .....; (b) the median is .....;

(c) the mode is .....; (d) the range is .....

Revision Sheet 2R2 **Name** . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K5. Complete: $^4/_7$ means '4 of . . . . . .'

and it means '. . . . . divided by . . . . . .'

1K5. Complete: 49% means '. . . . . .'

1K5. Complete: 0.38 means '3 tenths and . . . . . .'

and it means '38 . . . . . .'

1K5. Shade 4% of this square ☐ $^3/_5$ of this one ☐ 0.09 of this one ☐

1K6. Complete the following: $^4/_5 = \ /_{20}$ $\quad ^{12}/_{21} = \ ^4/$

1K6. Convert $2^3/_7$ to an improper fraction . . . . . .

1K6. Convert $^{32}/_5$ to a mixed number . . . . . .

1K16.*Without a calculator, work out 142 672 ÷ 4 . . . . . .

1K17. If Moby drives for 5 hours at 90 km/h, how far will he travel? . . . . . .

1K11. The relation between number of children from a family attending an amusement park and the discount given is as follows: (1, 0), (2, 10), (3, 20), (4, 25), (5, 30), where the first number is the number of children and the second number is the discount as a percent.

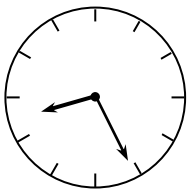
(a) What discount is given for 4 children? . . . . . .

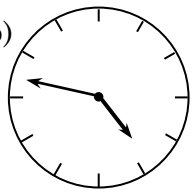
(b) How many children must go to get a 20% discount? . . . . . .

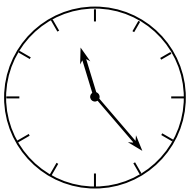
(c) Which is the independent variable? . . . . . .

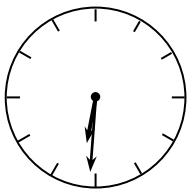
(d) Write the relation as a table.

1K14. What is the time to the nearest minute on each of these clocks?

(a)  . . . . . .

(b)  . . . . . .

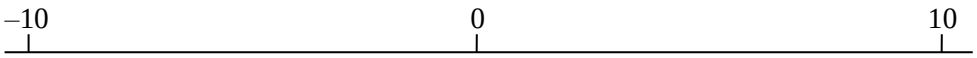
(c)  . . . . . .

(d)  . . . . . .

Revision Sheet 2R3 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K8. Place the following numbers on this number line: 4, –2, –8.5



1K8. How many degrees higher is 6ºC than −11ºC? . . . . . .

1K8. How much lower is −9 than −2.5? . . . . . .

1K8. The temperature at midday was 3ºC. By midnight it had dropped 8º. What was the temperature at midnight? . . . . . .

1K12. Write 10^4 as a numeral. . . . . .

1K12. What is the square root of 64? . . . . . .

1K12. Use a calculator to find the square root of 13.69. . . . . .

1K13.*Work out 12 + 3 × (18 – 20 ÷ 4 × 3) . . . . . .

1K4. What units would you use to measure the following?

The length of someone's nose . . . . . The mass of concrete in a dam . . . . . .

The volume of a carrot . . . . . The area of a forest . . . . . .

1K14. List the months that have 31 days: . . . . . .

. . . . . .

1K14. Use the calendar below to find what day of the week April 17 was in 2004 . . . . . .

APRIL 2004						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

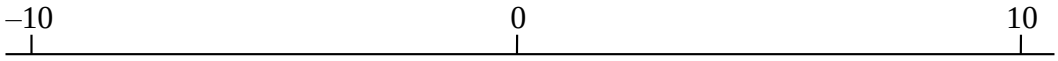
What date was the last Tuesday in April in 2004? . . . . . .

What day of the week was 10 May 2004? . . . . . .

Revision Sheet 2R4 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K2. Write 'Forty million and ninety two' as a numeral . . . . . .



1K14. This is part of a train timetable:

Chelmsford	6:35	7:05	7:35	7:50	8:05
Brentwood	6:53	7:23	7:53	8:08	8:23
Romford	7:02	7:32	8:02	8:17	8:31
Ilford	7:12	7:42	8:12	8:27	8:42
Bethnal Green	7:25	7:55	8:25	8:40	8:55
Liverpool Street	7:34	8:04	8:34	8:49	9:04

(a) What time does the 7:23 from Brentwood arrive at Bethnal Green? . . . . . .

(b) How long does the 8:05 take to get from Chelmsford to Ilford? . . . . . .

(c) Which train would you need to get from Romford to catch the 8:32 from Liverpool Street to Epping? . . . . . .

1K7. The following table shows the numbers of pies eaten in the last week by students in 8F. Present this data as a picture graph in the space.

Student	**Pies**
Dee Klein	5
Barb Dwyer	1
Dwayne Pipe	4
Evan Zabuv	7
Ron Peters	0
Ellie Mentery	2

1K7. Use the bar graph below to find roughly how many pet fish Kim has . . . . . .

Revision Sheet 2R5 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K6. Complete this table

Common Fraction	¾			$^4/_9$			$1^2/_5$
Decimal Fraction		0.28			0.016		
Percentage			47%			3%	

1K6. Write four common fractions equivalent to $^6/_8$ . . . . . .

1K6. Write $^{12}/_{20}$ in simplest form . . . . . .

1K6. Convert $4\frac{3}{4}$ to an improper fraction . . . . . .

1K13. Without a calculator, work out $2 + 6 \div 2$ . . . . . .

1K13.*Without a calculator, work out $12 - 6 \div (2 + 2 \times 2) + 1$ . . . . . .

1K16.*Without a calculator, work out $2.42 - 0.3811$

1K3. You want to survey some of the residents of the local retirement village to find out what percentage of them would like each of the following services which your school could provide: a weekly sing-along; a performance of the musical; skate-boarding lessons; gardening.

Design a data record template that could be used to survey about 15 residents.

1K7. Plot this table of score on the test vs hours spent on homework as a scatter graph.

Hours	Score
4	51
13	88
7	70
1	21
10	90
7	51

Revision Sheet 2R6 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K2. Write 407 245 030 in words

1K6. Write two common fractions equivalent to $^{10}/_{16}$, one using smaller numbers, one using larger numbers

. . . . . .

1K8. Mini's bank balance stands at −$65 ($65 overdrawn). She needs to have $120 in the account to pay her phone bill. How much does she have to put in?

. . . . . .

1K13. Without a calculator, work out 4 + 12 ÷ 2 . . . . . .

1K9. Use a calculator to work out the following:

27 × 3.2 . . . . . 625 ÷ −8 . . . . . 1000 – 327.91 . . . . . .

$^{3}/_{5}$ + $^{7}/_{10}$ . . . . . $5 - 2^{4}/_{7}$ . . . . . $^{14}/_{5} \div 1^{2}/_{15}$ . . . . . .

1K16. Without a calculator, work out 2.7 + 0.28 . . . . . .

1K17.* If Rumen can type 25 words per minute, how many hours will it take her to type 10 500 words? . . . . . .

1K11. When the temperature it 10°, the evaporation rate is 4 L/h, at 20° it is 9 L/h, at 30° it is 20 L/h and at 40° it is 42 L/h. Write this relation as a set of ordered pairs, as a table and as a graph.

1K10. 4.5 m = ... mm 1500 g = ... kg 20 mL = ... L

0.07 t = ... kg 0.3 L = ...cm^3 2 km = ... cm

1K7. Of the 20 presents that Santa brought, Clara got 3, Brady got 7 and Amrad got 10. Present this data as an approximate hand-drawn pie chart.

Revision Sheet 2R7 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K5. Complete: $^5/_6$ means '. . . . . of . . . . parts'

and it means '. . . . . divided by . . . . . .'

1K5. Complete: 8% means '. . . . . .'

1K5. Complete: 0.027 means '2 . . . . . and 7 . . . . . .'

and it means '27 . . . . . .'

1K6.* Complete this table

Improper fraction	$^5/_4$		$^{11}/_{10}$		$^7/_3$		$^{18}/_{11}$
Mixed number		2½		$1^2/_3$		$4^7/_9$	

1K6. Draw a diagram that shows why $^3/_4$ is the same as $^6/_8$.

1K17. If 5 kg of mince costs $65, what is the price per kg? . . . . . .

1K17. If 4.5 kg of cheese costs $62.10, what is the price per kg? . . . . . .

1K4. Estimate the mass of a cubic metre of concrete . . . . . .

1K4. Estimate the mass of a cockroach . . . . . .

1K4. Estimate the length of a cockroach . . . . . .

1K4. Estimate the area of a cockroach's back . . . . . .

1K3. In the space below, design a data record template to survey the colours of cars. Then go to a suitable place and collect the data from 40 cars.

1K15. Find the mean of 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 . . . . . .

Revision Sheet 2R9 Name . . . . . .

Answer on this sheet. For the questions marked *, show working on the back of the sheet.

1K2. Complete this table by putting a tick or cross in each box

	12	7	6	2	1	0	−2	3.5	½	$\sqrt{9}$
Counting number		✓								
Whole number		✓								
Real number		✓								
Factor of 6		×								
Multiple of 6		×								
Even		×								
Odd		✓								
Prime		✓								
Composite		×								

1K9. Use a calculator to work out the following:

$12 + -4$ . . . . . $12 - -4$ . . . . . $-12 + 4$ . . . . . .

$-12 + -4$ . . . . . 12×-4 . . . . . -12×4 . . . . . .

-12×-4 . . . . . $12 \div -4$ . . . . . $-12 \div -4$ . . . . . .

1K14. How many days in January to June 2023? . . . . . .

How many days in July to December 2023? . . . . . .

Which half of the year is longest? . . . . . .

1K7. The scores on the maths test for Class 8F were: 7, 9, 7, 4, 8, 2, 6, 7, 9, 6, 10, 7, 7, 5, 6, 8.

Present this data as a dot plot in the space below.

1K15. For the data above, calculate the

Mean . . . . . .

Median . . . . . .

Mode . . . . . .

Revision Sheet 2M5 Name . . . . . .

Show working on the back of the sheet for the questions marked with a *.

1. Write the name and abbreviation for the metric unit which is closest to each of the following: (7Ma)

   the area of the roof of a car . . . . . .

   the volume of a guinea pig . . . . . .

   the mass of a litre of water . . . . . .

   the distance one can walk in 10 minutes . . . . . .

   the area of a finger nail . . . . . .

   the thickness of a slice of bread . . . . . .

2. 200 m = ... km = ... cm (7Mb)

3. 0.5 L = ... mL = ... 3CM (7Mb)

4. 1.3 kg = ... g = ... t (7Mb)

5. Estimate the mass of an average domestic cat . . . . (7Mc)

6. Estimate the mass of a cow . . . . . (7Mc)

7. Estimate the mass of a bus . . . . . .(7Mc)

8. Measure the length of this line to the nearest millimetre . . . . . .

   ———————————————————— (7Mc)

9. * Estimate the area of the floor of the room you are in . . . . (7Mc)

10. Estimate the volume of a car . . . . . (7Mc)

11. Estimate the height of a fully grown tree . . . . . (7Mc)

Revision Sheet 2N5 Name . . . . . .

Do not use a calculator. Show working on the back of the sheet for the questions marked with a *.

1. Write the following number in numerals:
   Four thousand, six hundred and eighty two . . . . (7Na)

2. Write 7 029 in words . . . . . (7Na)

3. Complete: $^2/_3$ means '2 of . . . . . .'

   and it means '. . . . . by 3' (7Nb)

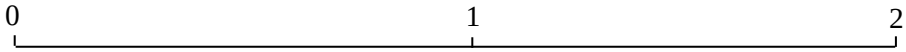
4. Complete: 13% means '. . . . . .' (7Nc)

5. Complete: 0.54 means '5 tenths and . . . . . .'

   and it means '54 . . . . . .' (7Nd)

6. Shade 30% of this square ☐ $^1/_5$ of this square ☐ and 0.9 of this square ☐ (7Nb,c,d)

7. Mark $1^4/_5$, 0.45 and 130% on this number line (7Nb,c,d)



8. What is an even number? . . . . . (7Ne)

9. What is an odd number? . . . . . (7Ne)

10. Write down 6 factors of 20 . . . . . (7Ne)

11. Write down 6 multiples of 20 . . . . . (7Ne)

12. Which counting number has only one factor? . . . . . (7Ne)

13. For each of the following, say whether it is prime (P), composite (C) or neither (N) (7Ne)

    5 . . . . . 31 . . . . . 26 . . . . . 1 . . . . . 3.7 . . . . . 12 . . . . . 57 . . . . . .

14. Put >, < or = between each of these pairs of numbers (7Ne)

    12 . . . . 20 3.76 . . . . 3.8 17 . . . . 1.8 2¾ . . . . 2¼ 4.2 . . . . $4^1/_5$ 6+4 8

Revision Sheet 2N6 Name . . . . . .

Do not use a calculator. Show working on the back of the sheet for the questions marked with a *.

1. Write the following number in words: 6 324 (7Na)

   . . . . . .

2. Write the following number in numerals:
   Nine thousand, six hundred and forty five . . . . (7Na)

3. Write 3 309 in words (7Na)

   . . . . . .

4. Complete: $^2/_9$ means ' . . . . . parts'

   and it means '2 . . . . . ' (7Nb)

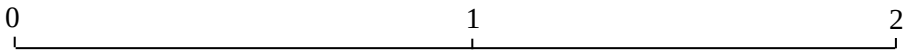
5. Complete: 60% means '. . . . . ' (7Nc)

6. Complete: 0.127 means '1 tenth, ... '

   and it means '. . . . . thousandths' (7Nd)

7. Shade 75% of this square ☐ $^3/_4$ of this square ☐ and 0.02 of this square ☐ (7Nb,c,d)

8. Mark $^7/_{10}$, 0.4 and 5% on this number line (7Nb,c,d)



9. Write $^3/_7$ in terms of division . . . . . (7Nb)

10. Write 29 hundredths as a decimal fraction . . . . . (7Nd)

11. Write down 4 multiples of 10 . . . . . (7Ne)

12. Write down 4 factors of 10 . . . . . (7Ne)

13. List the prime numbers between 0 and 20 (7Ne)

    . . . . . .

14. Put >, < or = between each of these pairs of numbers (7Ne)

    120 . . . . 20 3.76 . . . . 7 17 . . . . 17 1¾ . . . . 2¼ 4.6 . . . . $4^1/_5$ 16–4 . . . . 10+3

Revision Sheet 2N7 Name . . . . . .

Do not use a calculator. Show working on the back of the sheet for the questions marked with a *.

1. Write the following number in numerals:
   Six hundred million, and forty thousand . . . . . (N4a)

2. Complete: $^4/_{10}$ means ' . . . . .of . . . . . pieces'

   and it means '. . . . . .' (7Nb)

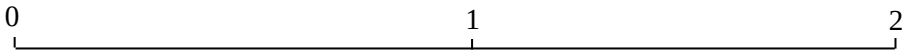
3. Complete: 18% means '. . . . . .' (7Nc)

4. Complete: 0.026 means ' . . . . . .'

   and it means '26. . . . . .' (7Nd)

5. Shade $^3/_7$ of this square ☐ 2%of this square ☐ and 0.61 of this square ☐ (7Nb,c,d)

6. Mark $1^3/_{10}$, 0.06 and 77% on this number line (7Nb,c,d)



7. Write 5÷3 as a common fraction . . . . . (7Nb)

8. Write 2 thousandths as a decimal fraction . . . . . (7Nd)

9. What is the smallest three-digit odd number? . . . . . (7Ne)

10. What is the largest two-digit even number? . . . . . (7Ne)

11. What are the two lowest factors of 32 . . . . . (7Ne)

12. Write down the two lowest multiples of 22 . . . . . (7Ne)

13. List all the factors of 16 . . . . . (7Ne)

14. For each of the following, say whether it is prime (P), composite (C) or neither (N) (7Ne)

    16 . . . . . –3 . . . . . 13 . . . . . 1 . . . . . 0 . . . . . 49 . . . . . 29 . . . . .

1. Put >, < or = between each of these pairs of numbers (7Ne)

   18 . . . . 20 3.76 . . . . 3.67 1.7 . . . . 1.70 3¾ . . . . 4¼ 16–4 . . . . 10+3

Revision Sheet 2N8 Name . . . . . .

Do not use a calculator. Show working on the back of the sheet for the questions marked with a *.

1. Write the following number in words: 46 300 000 000 (N4a)

   . . . . . .

2. Write the following number in numerals:
   Six hundred million, and forty thousand . . . . . (N4a)

3. Complete: $^5/_8$ means ' . . . . of . . . . . pieces'

   and it means '. . . . . ' (7Nb)

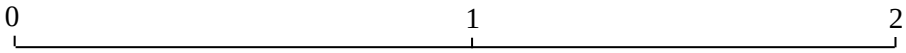
4. Complete: 1% means '. . . . . ' (7Nc)

5. Complete: 0.402 means ' . . . . . '

   and it means '402. . . . . ' (7Nd)

6. Shade 0..5 of this square ☐ $^1/_3$ of this square ☐ and 100% of this square ☐ (7Nb,c,d)

7. Mark $^4/_8$, 1. 7 and 115% on this number line (7Nb,c,d)



8. Write $^5/_9$ in terms of division . . . . . (7Nb)

9. Write 38 tenths as a decimal fraction . . . . . (7Nd)

10. Write down 4 multiples of 13 . . . . . (7Ne)

11. Write down all the factors of 13 . . . . . (7Ne)

12. List the composite numbers between 0 and 19 (7Ne)

    . . . . . .

13. Put >, < or = between each of these pairs of numbers (7Ne, N4d)

    20 . . . . 20 3.76 . . . . 7.63 17.02 . . . . 17.1 1¾ . . . . 2¼ –4 . . . . –5 3+4 10–3

Revision Sheet 2N9 **Name** . . . . . .

1. Write 34 095 527 000 200 in words.

2. Write 'One hundred and fifty nine billion, three hundred and eighty eight million, two hundred and nine thousand' in numerals.

3. Circle the counting numbers in this list:

   0 1 2.5 3¼ 17 –21

4. Underline the factors of 12 and circle the multiples of 12 in this list:

   5 36 12 6 24 0 2400 1

5. Circle the odd numbers in this list:

   5 8 2 1 76 397 26 005

6. List the next 4 composite numbers after 18.

7. Underline the primes and circle the composite numbers in this list:

   17 46 57 1 31 –4 101 ½

8. Insert >, < or = to make the following true

   (a) 16 . . . 5 (b) 12 . . . 5 (c) 4 . . . 2+2 (d) 16+5 . . . 20 (e) 4+7 . . . 30–18

9. Write 13.6 million as a numeral.

10. What is the smallest number that has 2, 4 and 5 as factors?

11. 28 can be written as a product of prime numbers. It is 2×2×7. Do the same for:

    (a) 30 (b) 22

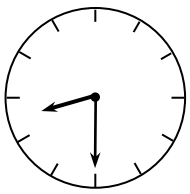
    (c) 37 (d) 660

    [Remember: if a number is even, it has a factor of 2; if the sum of the digits of a number is divisible by 3, then the number itself has a factor of 3; if a number ends in 0 or 5, it has a factor of 5.]

12. 70 = 2×5×7; 990 = 2×3×3×5×11; 70×990 = 69300. Write 69300 as a product of prime numbers.

Revision Sheet 2T5 Name . . . . . .

1. What is the time to the nearest minute on each of these clocks?

(a) 

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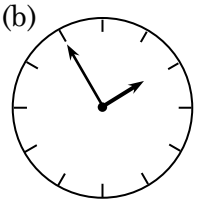
(b) 

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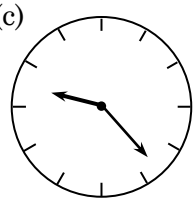
(c) 

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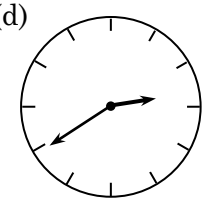
(d) 

. . . . . .

2. Write the sequence of the months and the number of days in each.

3. (a) Use the calendar below to find what day April 17 was in 2004 . . . . . (7Tb)

APRIL 2004						
S	**M**	**T**	**W**	**T**	**F**	**S**
				1	**2**	**3**
4	**5**	**6**	**7**	**8**	**9**	**10**
11	**12**	**13**	**14**	**15**	**16**	**17**
18	**19**	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**	

(b) What date was the third Tuesday in April that year? . . . . . (7Tb)

4. This is part of a train timetable:

Chelmsford	6:35	7:05	7:35	7:50	8:05
Brentwood	6:53	7:23	7:53	8:08	8:23
Romford	7:02	7:32	8:02	8:17	8:31
Iford	7:12	7:42	8:12	8:27	8:42
Bethnall Green	7:25	7:55	8:25	8:40	8:55
Liverpool Street	7:34	8:04	8:34	8:49	9:04

(a) What time does the 7:23 from Brentwood arrive at Bethnall Green? . . . . . (7Tb)

(b) How long does the 8:05 take to get from Chelmsford to Ilford? . . . . . (7Tb)

(c) Which train would you need to get from Romford
to catch the 8:00 from Liverpool Street to Epping? . . . . . (7Tb)