

Foundation Mathematics - Practice Examination B

Please note ... the format of this practice examination is different from the current format. The paper timings are different and calculators can be used throughout.

MATHEMATICS **Standard Grade - Foundation Level**

Time allowed - 1 hour 10 minutes

First name and initials

Surname

Class

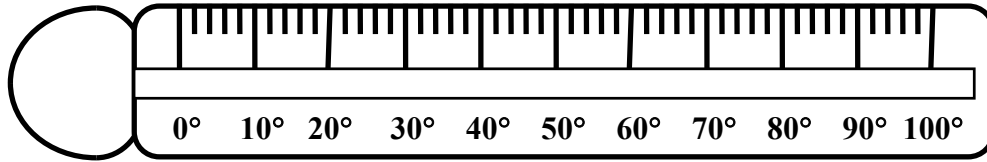
Teacher

Read Carefully

1. Answer as many questions as you can.
2. Write your answers in the spaces provided .
3. Show all your working .
4. **You may use a calculator**

1. The temperature in Paris is 28°C.

Mark this temperature on the thermometer.



KU	RA
1	

2. Susan arrives home from work in the evening at ten to seven.

Write this as a 24 hour clock time.

NOTES/WORKING

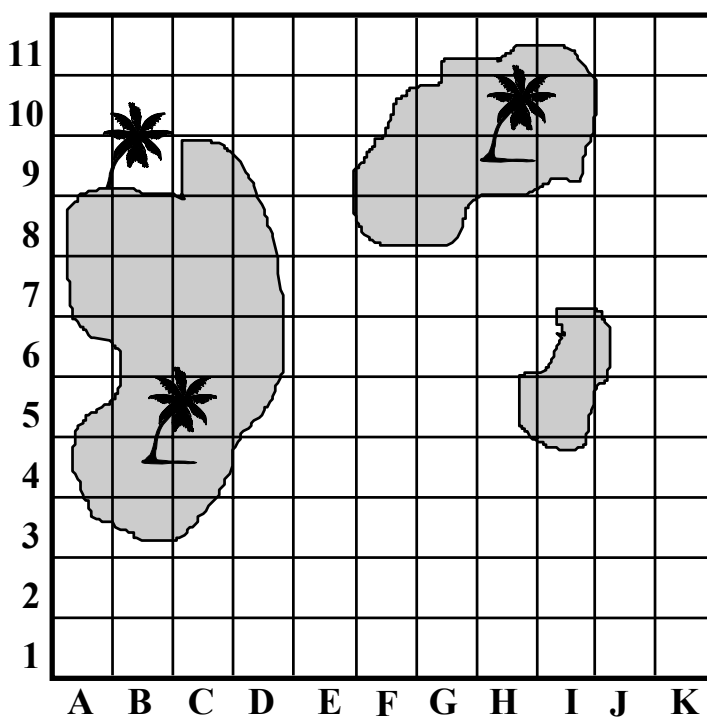
ANSWER

:

2	

3. There is treasure buried in square C7.

Mark the treasure with a cross.



2	

4. The electricity board decide to increase their bills by 10%.

Mr Smith's normal bill is £45.00.

What will his new bill be after the increase ?

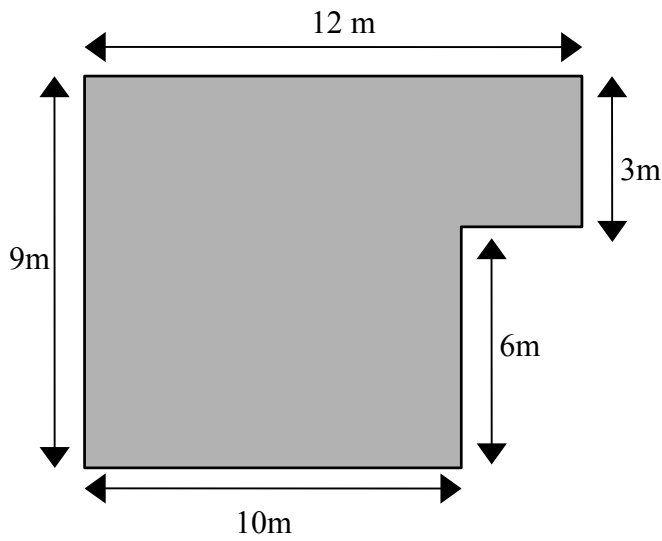
KU **RA**

3

NOTES/WORKING

ANSWER

5. Julie is decorating her living room.
 She decides to put a thin border all the way round the wall.
 The shape and size of her room is shown below.



What total length of border will Julie need to buy for her living room ?

WORKING

ANSWER

metres

3

6. It takes a man two hours to travel 110 miles in his car.
 His daughter travels the same journey at an average speed of 60 miles per hour.
 If they both leave at the same time, who will arrive at their destination first ?
Show all your working.

WORKING

ANSWER

3

7. Pat's uncle has given him a £10 note for his 13th birthday.
He decides to buy himself a book priced at £3.59 and a CD costing £3.99.

(a) How much change will Pat get back from his ten pound note ?

WORKING

ANSWER

KU RA

2

(b) Pat is thirsty and sees a drinks machine. All the cans cost 35p.
He notices that the machine only takes the exact money.
Given that as part of his original change he has been given two pound notes, is it possible that Pat can use the rest of the change from his birthday money to buy himself a can ? **You must show all your working.**

WORKING

ANSWER

2

8.

TRAIN	A	B	C	D	E	F	G
Marton	0906	1006	1106	1206	1306	1406	1506
Beasley	0933	1033	1133	1233	1333	1433	1533
Floen	0951	1051	1151	1251	1351	1451	1551
Canston	1008	1108	1208	1308	1408	1508	1608

The above extract shows part of a train timetable.

(a) What time does the earliest train arrive at Floen ?

ANSWER

1

8. (b) Mary has a job interview in Canston at 2.00 pm.

What is the latest time she can leave her house in Beasley, if it takes her 15 minutes to walk to the station ?

WORKING

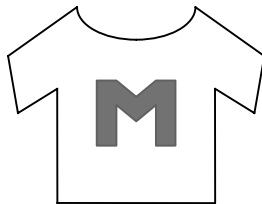
ANSWER

3

9. Julie has a new job working in MacDavids Burger Place. She can choose different colours for her uniform, as shown below.



blue or yellow



red or blue or yellow



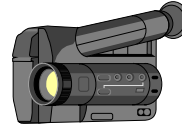
black

Complete the table below to show all the different choices of uniform she could wear.

cap	t shirt	trousers

3

10. Frank buys a new video camera. It costs £455.
 He decides to pay it up at no extra cost !
 The deposit is £95 and he must make 9 equal
 monthly payments.



How much does he have to pay each month ?

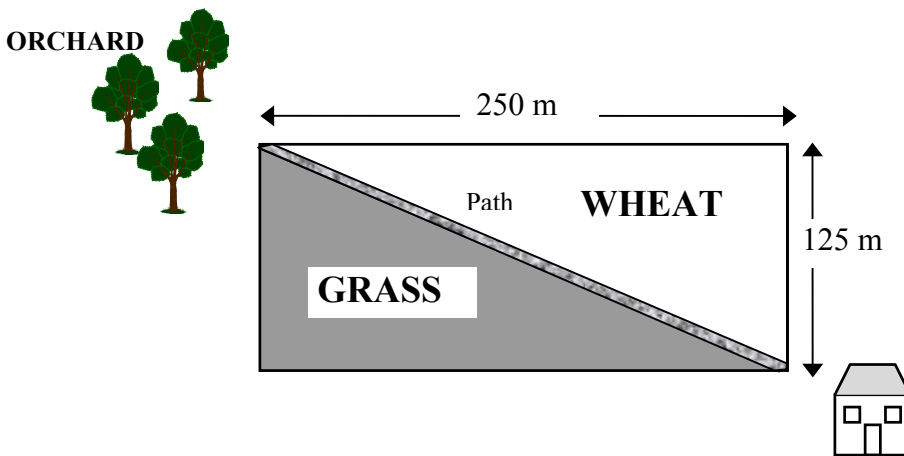
WORKING

ANSWER £

KU RA

3

11. A farmers field is in the shape of a rectangle as shown below.
 The farmers' house is diagonally opposite his orchard.
 To reach his orchard there is a path which cuts through the middle of the field.



(a) Calculate the area of grass in square metres.

WORKING

ANSWER

square metres

2

11. (b) If grass seed costs ten pence per square metre, how much did it cost him to seed the grass ?

WORKING

ANSWER

£

2

12.



(a) 123 people attended a local bingo night.

How much money was collected, in total, from the entrance fee ?

WORKING

ANSWER

£

1

(b) During the evening there were 3 prizes of £75 and two of £50.
The cost of heating the hall came to £38.

Did the Bingo night make a profit ?
You must give a reason for your answer.

WORKING

ANSWER

£

4

13. Peter was carrying out a survey for his maths class.
He recorded 105 cars passing his corner in 15 minutes.

(a) How many cars, on average, would this be per minute ?

WORKING

ANSWER

cars

2

(b) One fifth of the cars were blue.

How many cars were blue ?

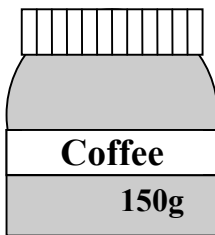
WORKING

ANSWER

cars

2

14.



A jar of coffee holds 150 grams.

1 teaspoon holds 3 grams of coffee.

(a) How many teaspoons of coffee can you get from 1 jar ?

WORKING

ANSWER

teaspoons

2

14. (b) Julie takes 2 teaspoons of coffee per mug.

How many mugs of coffee will she get from the jar ?

WORKING

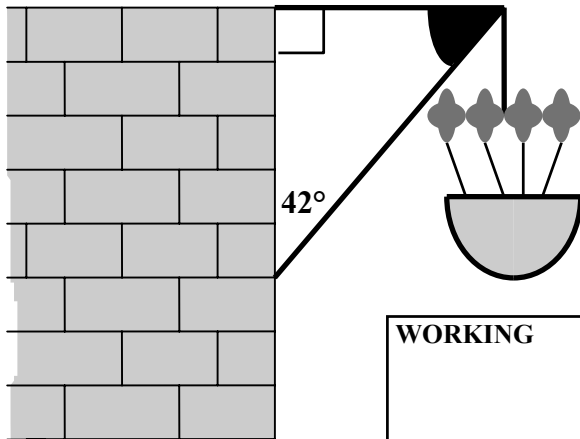
ANSWER

mugs

KU RA

2

15.



Calculate the size of the angle marked in black.

WORKING

ANSWER

degrees

2

16. While shopping at her local supermarket Marie and Sandra noticed the sign shown below.

KU RA

Salad Counter
 any five portions only
£1.25
 (extra portions 30p each)
 Choose from

- Lettuce
- Tomato
- Cucumber
- Onion
- Carrot
- Sweetcorn
- Cabbage
- Beetroot

(a) The girls decide to have lunch. Each item they pick is marked with a star. Fill in the cost of each girl's total bill.

ITEM	MARIE	SANDRA
LETTUCE	*	*
TOMATO		*
CUCUMBER	*	*
ONION		*
CARROT	*	
SWEETCORN		*
CABBAGE	*	*
BEETROOT	*	*
TOTAL		

WORKING

16. (b) Julie joins them for lunch.
Her bill comes to £2.15.
- How many items has she ordered ?

WORKING

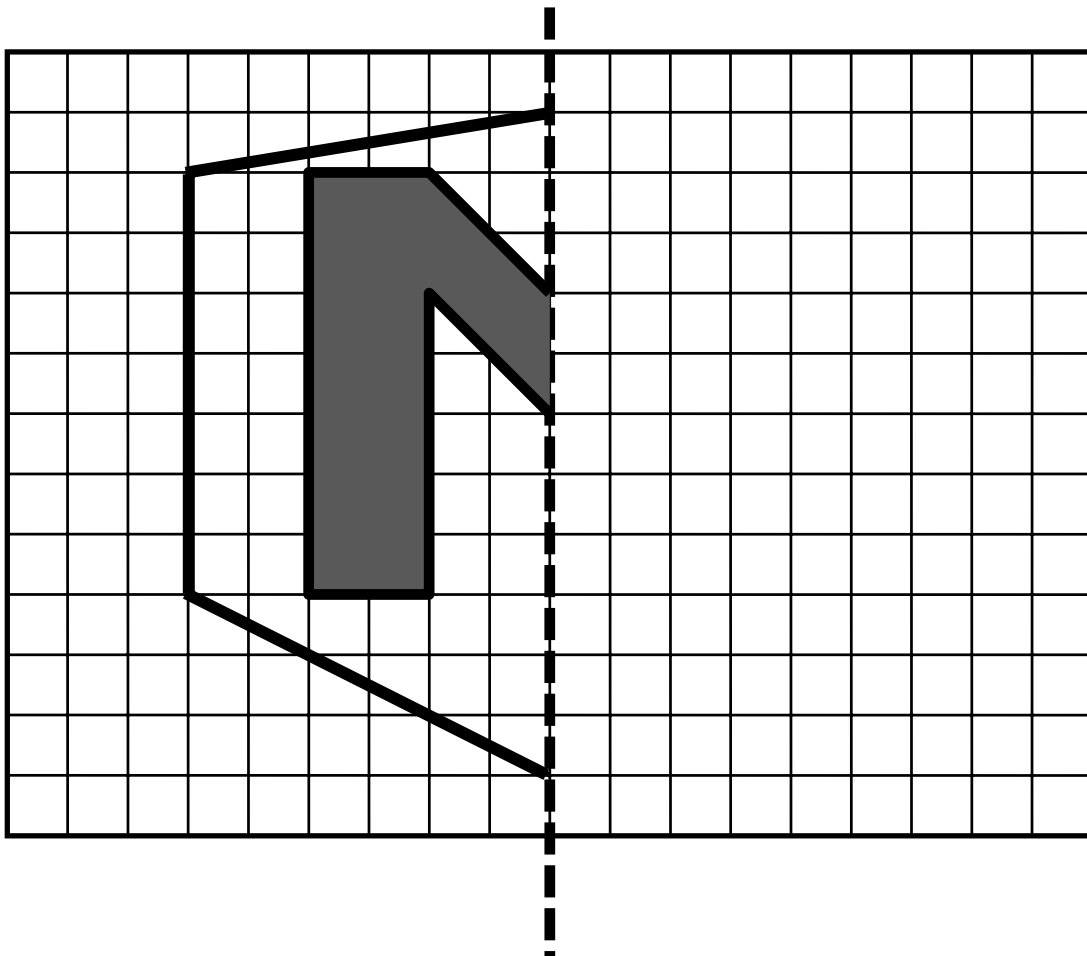
ANSWER

items

KU RA

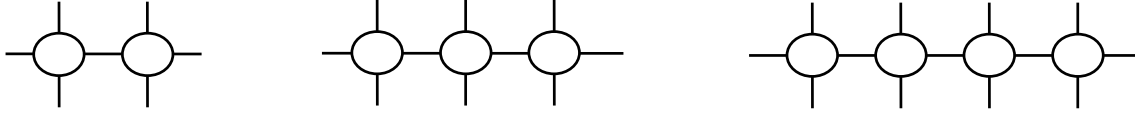
3

17. The Macksfield local youth club has a new logo !
- Complete the diagram below given that the dotted line as an axis of symmetry.



3

18. John was doodling during his art lesson and stumbled upon an interesting pattern. He noticed that if he joined two circles by a straight line and then added other lines around the sides an ordered pattern was formed. The first three doodles in his pattern are shown below.



(a) Draw the next doodle in John's pattern.

ANSWER

(b) Complete the table below to show how many lines there would be around a particular numbers of circles.

Number of circles	2	3	4	5	6		10		20
Number of lines	7	10	13						

(c) Write down a rule describing how you would find the number of lines if you were given the number of circles.

WORKING

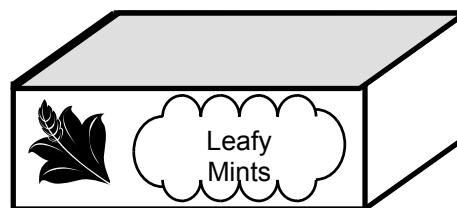
ANSWER

1

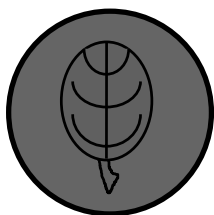
3

2

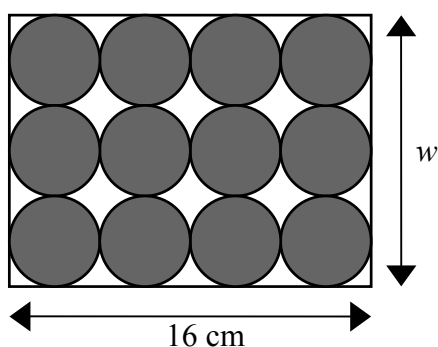
19. Leafy mint chocolates are packaged in the box shown opposite.



Each chocolate is circular in shape.



The chocolates are laid out in the box as shown below.



(a) How wide is each circle ?

WORKING

ANSWER

cm

2

(b) What is the width, w , of the box ?

WORKING

ANSWER

cm

2

20. The table below shows class 2A's favourite types of film.

Type of book	Horror	Romance	Science Fiction	Comedy	Thriller
Number of pupils	12	4	5	7	2

(a) How many pupils are in class 2A ?

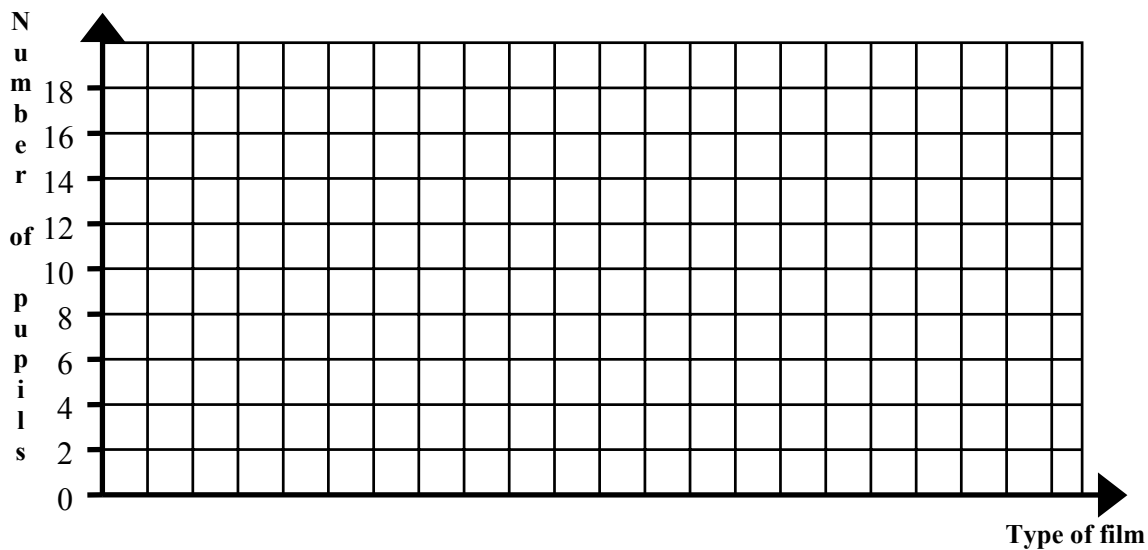
WORKING

ANSWER

pupils

1

(b) Complete the bar graph below to show class 2A's results.



3

(c) Mrs Smith, the class teacher, commented that more than half the class preferred either horror or thriller films.

Was her statement correct ?

You must give a reason for your answer.

WORKING

ANSWER

2

21. At his local video shop a man notices a sign.

KU RA

AZTEC VIDEO
Hire **2** videos for **one** night
FOR ONLY
£3.00 !!!

(a) The normal cost of hiring **one** video for **one** night is £2.50.

How much money can he save by hiring 2 videos, for one night, using this special offer ?

WORKING

ANSWER £

3

(b) The video shop in the next street has the following offer :-

AKAD VIDEO
Hire any 2 videos
for 2 nights for
only
£5.75

(b) Which video shop has the best offer for hiring two videos for two nights ?
You must give a reason for your answer.

WORKING

ANSWER £

3

22. To calculate the monthly payment on a new washing machine, a shop uses the following formula

$$\text{Monthly Payment} = (\text{Total Cost} - \text{Deposit}) \div \text{number of months}$$

Calculate the monthly payment on a washing machine costing £360, if a deposit of £60 has to be paid, and the customer wishes to pay over a period of 10 months.

WORKING

ANSWER

KU RA

3

END OF QUESTION PAPER

1. For marking answer (1) [1 KU]

2. 16 50 (2) [2 KU]

3. For treasure marked (2) [2 KU]

4. For 10% is 0.10 or 1/10 (1)
 For 10% of £45 = £4.50 (1)
 For £49.50 (1) [3 KU]

5. For $12 - 10 = 2$ (1)
 For $12 + 3 + 2 + 6 + 10 + 9$ (1)
 For 42 metres (1) [3 KU]

6. For mans speed is 55 mph (1)
 For answer daughter will arrive first (1)
 For daughters speed is quicker (or equivalent) (1) [3 RA]

7. (a)
 For $3.59 + 3.99 = 7.58$ (1)
 For $10.00 - 7.58 = £2.42$ (1) [2 KU]

(b)
 For Yes (1)
 For 10p 10p 10p 5p 5p 2p (or any combination of 42p from which 35p can be taken) (1) [2 RA]

8. (a)
 For 0951 (1) [1 KU]

(b)
 For correct train ie. at 1233 (1)
 For 1233 - 15 minutes (1)
 For answer 1218 (1) [3 RA]

9.

cap	t shirt	trousers
B	R	B
B	B	B
B	Y	B
Y	R	B
Y	B	B
Y	Y	B

..... (3) [3 KU]

10. For $455 - 95 = 360$ (1)
For $360 \div 9$ (1)
For £40 (1) [3 KU]
-

11. (a)
For $250 \times 125 = 31250$ square metres (*no marks for rectangle only*)
For $31250 \div 2$ (1)
For 15625 square metres (1) [2 KU]
- (b)
For 15625×0.10 (1)
For £1562.50 (1) [2 RA]
-

12. (a)
For 123×3.85 (1)
For £473.55 (1) [1 KU]
- (b)
For $3 \times 75 = 225$ and $2 \times 50 = 100$ (1)
For $225 + 100 + 38 = 363$ (1)
For $473.55 - 363 = 110.55$ (1)
For Yes £110.55 (1) [4 RA]
-

13. (a)
For $105 \div 15$ (1)
For 7 cars (1) [2 KU]
- (b)
For $105 \div 5$ (1)
For 21 cars (1) [2 KU]
-

14. (a)
 For $150 \div 3$ (1)
 For 50 teaspoons (1) [2 RA]

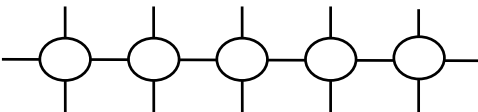
(b)
 For $50 \div 2$ (1)
 For 25 mugs (1) [2 RA]

15. For $180 - 90 - 42$ (1)
 For 48° (1) [2 KU]

16. (a)
 For Marie - £1.25 (1)
 For $2 \times 30 = 60p$ (1)
 For $1.25 + 0.60$ (1)
 For Sandra - £1.85 (1) [4 RA]

(b)
 For $2.15 - 1.25 = 0.90$ (1)
 For $0.90 \div 0.30 = 3$ (1)
 For $5 + 3 = 8$ (1) [3 RA]

17. For drawing diagram correctly (3) [3 KU]

18. (a)
 (1) [1 KU]

(b)

No Of circles	2	3	4	5	6	10	20		
No of lines	7	10	13	16	19	31	61 (3)	[3 RA]

(c)
 Circles times 3 add 1 (or equivalent) (2) [2 RA]

19. (a)
 For $16 \div 4$ (1)
 For 4 cm (1) [2 KU]

(b)
 For 3×4 (1)
 For 12 cm (1) [2 RA]

20. (a)
 For 30 pupils (1) [1 KU]

(b)
 For correct sizes of bars (1)
 For correct labeling of bars (1)
 For spaces between bars (1) [3 KU]

(c)
 For $12 + 2 = 14$ people liked horror and thriller (1)
 For No
 there are 30 people in the class, 14 is less than half
 (or equivalent) (1) [2 RA]

21. (a)
 For normal price $2 \times 2.50 = \text{£}5.00$ (1)
 For $5.00 - 3.00 = \text{£}2.00$ (2) [3 RA]

(b)
 For Aztec - 2 videos for 2 nights = $2 \times 3 = \text{£}6.00$ (1)
 For Shop 2 (Akad) is cheaper ($\text{£}5.75$) (1)
 For By $\text{£}0.25$ (as explanation) (1) [3 RA]

22. For $360 - 60 = 300$ (1)
 For $300 \div 10$ (1)
 For $\text{£}30$ (1) [3 RA]

	K U	R A
Totals	31	43