

Tennis balls

- 54,249 used during Wimbledon fortnight
- Stored at 68°F.
- New balls after the first 7 games (to allow for warm-up), then after every 9 games.
- After use, balls sold daily in the grounds: £2.50 per tin of three (proceeds to charity).
- Yellow balls used for first time in 1986.
- At start of the day 48 tins are taken to Centre and to No.1 courts.
- 24 tins are taken to all other courts.



Dimensions

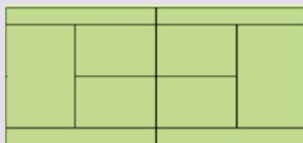
Singles court is 78ft x 27ft

Doubles court is 78ft x 36ft

No. 1 Court stadium is 121m long x 121m wide. Total area of grass is 41m x 22m.

Centre Court stadium: 110m x 119m x 19m high. Total area of grass is the same as No. 1 Court. All **court lines** are 50mm wide, except base lines which are 100mm.

Grass is cut 3 times a week in May to a height of 15mm. During Wimbledon fortnight it is cut daily to a height of 8mm.



The Championships, Wimbledon 2017

3 July – 16 July

Schedules & times of play

- Grounds open at 10:30am.
- Start on Courts *2-19 is at 11:30 daily
- Centre and No.1 Court open 1.00pm daily except Men's and Ladies' Finals 2.00pm
- Close of play and grounds: approx. 9.00pm

Centre Court

14,979 seats. Finals matches on:

- **Saturday 15 July 2017:** Ladies' Singles, Gentlemen's Doubles, Ladies' Doubles.
- **Sunday 16 July 2017:** Gentlemen's Singles, Mixed- Doubles.

* There is no court number 13



Strawberries & Cream

28,000 kg strawberries are eaten over the fortnight, served with 7,000 litres of cream. Around 8000 punnets, containing a minimum of 10 berries, are consumed daily.

Price per punnet (1993-2017):

| | | | |
|---------|-------|---------|-------|
| 1993-94 | £1.70 | 2001 | £1.85 |
| 1995 | £1.75 | 2002 | £1.95 |
| 1996 | £1.80 | 2003-07 | £2.00 |
| 1997-98 | £1.85 | 2008-09 | £2.25 |
| 1999 | £1.75 | 2010-17 | £2.50 |
| 2000 | £1.80 | | |

Catering

(quantities supplied in 2016)

- 330,000 cups of tea and coffee
- 230,000 bottles of water
- 234,000 meals served
- 320,000 glasses of Pimm's
- 110,000 sandwiches and baguettes
- 25,000 scones
- 110,000 pints of draught beer and lager
- 16,000 portions of fish and chips
- 10,000 portions of frozen yoghurt
- 29,000 bottles of champagne
- 5,000 kilos of bananas (for players)

Staff

About 6000 staff are taken on for the Championships. These include:

| | |
|-------------------------|--------------------------------------------|
| Ball boys & girls: 250 | Lift operators: 30 |
| Ball distributors: 7 | Physiotherapists: 14 |
| Building Services: 84 | Media staff: 38 |
| Catering Staff: 1,800 | Referees' office: 15 |
| Cleaners day: 114 | Scoreboard operators & data collectors: 82 |
| Cleaners night: 191 | Stewards: 780 |
| Court attendants: 151 | Transport drivers: 320 |
| Dressing room: 22 | Umpires: 350 |
| Groundsmen: 20 | |
| Left luggage office: 30 | |



When you see  you must show your working out even if you use a calculator.

Functional Maths – Entry Level 2

Strawberries

1. a) How much was a punnet of strawberries in 1993? _____

b) How much would 2 punnets cost in 2003? _____



Dimensions

2. a) How much wider is a doubles court than a singles court? _____ ft



b) How high is the grass during the Championships? _____

c) What 2D shape is a tennis court? _____

d) Use a ruler to measure the length and width of the small tennis court image.
Give your answer to the nearest cm. _____ cm x _____ cm

Balls

3. a) List all the odd numbered courts at Wimbledon. **Read the information very carefully** 😊.

b) What is the total number of tins taken to Centre and No 1 Court each day? _____



c) How many tennis balls in two tins? _____

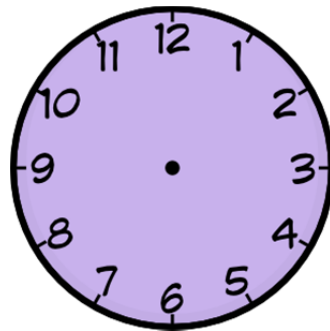
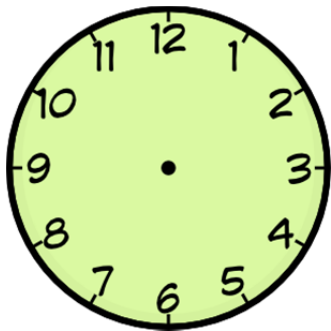


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Functional Maths – Entry Level 2 (continued)

Times of play

- 4. a) Does play start on Centre Court in the morning or the afternoon? _____
- b) Which finals match happens first? Mixed Doubles or Ladies’ Doubles? _____
- c) Put the hands on the clocks.
 - i. The grounds open at **10.30am**.
 - ii. Play finishes at about **9pm**.



Staff

- 5. a) How many transport drivers are there? Write the number in words. _____
- b) There are more groundsmen than lift operators. True or false? _____
- c) Complete each sentence
 - i. There are ___ more media staff than groundsmen. [Complete with a 2-digit number]



- ii. The number of physiotherapists is _____ the number of ball distributors. [Complete with a word]



Catering

- 6. a) Half the servings of fish and chips were served with peas. _____
How many servings of peas is this?



- b) Which is more popular? Pimm’s or bottles of water? _____



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Functional Maths – Entry Level 3


Strawberries

1. a) How much for 2 punnets of strawberries in 1993? _____
- b) In what year did the cost of strawberries drop? _____
- c) In 2016, by how much has the cost of strawberries gone up since 1996? _____
- d) Could you get 11 strawberries in a punnet? Explain your answer _____
- e) Approximately how many strawberries would you get in 3 punnets? _____
- f) Comment on your answer to e. _____

Dimensions

2. a) Base lines are twice as wide as other court lines. True or false? _____
- b) During Wimbledon fortnight, the grass is _____ mm shorter than it is in May.

- c) Which Stadium is longer? Centre Court or Court No 1? _____
- d) You walk halfway along the length of a court. How far is this in feet? _____

- e) Grass is cut to 15mm in May. What is this in cm? _____ cm

Balls

3. a) Circle games when new balls will be used. (WU = warm up). The first one has been done for you.
WU 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
- b) How many tennis **balls** are delivered to Centre Court each day? _____

- c) What 3D shape is a tennis ball? _____

When you see  you must show your working out even if you use a calculator.

Functional Maths – Entry Level 3 (continued)

Staff

4. a) How many stewards are there? Write the number in words. _____
- b) How many cleaners are there? _____



- c) Complete the missing information in the table.

| Occupation | Number of staff | Rounded to nearest 10 | Rounded to nearest 100 |
|-------------------|-----------------|-----------------------|------------------------|
| Ball distributors | 7 | | |
| Building Services | 84 | | |
| Cleaners day | 114 | | |
| Court attendants | 151 | | |
| Dressing room | 22 | | |
| Media staff | 38 | | |
| Referees' office | 15 | | |

- d) List these occupations in decreasing order of number.
 Ball boys & girls (BB), court attendants (CA), catering staff (CS), transport drivers (TD), umpires (U).
 Start with the occupation that has the largest number of staff.

- e) Complete this sentence with a 3-digit number. There are _____ more stewards than umpires.



Times of play

5. a) How many days does the Wimbledon Championships last? _____
- b) What day of the week is 13th July 2017? _____
- c) Write these times in 24 hour clock format. 2.00pm _____ 9pm _____

Catering

6. How many (a) scones and (b) sandwiches/baguettes were supplied? Write each number in words.
- a) _____ b) _____

When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 1

Strawberries

1. a) i) Plot a **line graph** showing the change in strawberry prices since 2003. *Graph paper on page 13.*
You must give your graph a title, and clearly label the x and y axes. ii) **See graph paper**

b) What is the percentage price increase from 2007 to 2016? _____



c) Calculate the average weight of strawberries eaten per day. _____



d) What is the ratio of cream to strawberries? (1 litre of cream weighs 1kg). _____
Simplify your answer.



e) What is the range in price for a punnet of strawberries from 1993 to 2016? _____



f) What is the minimum number of individual strawberries eaten per day? _____



g) What is the probability getting 8 strawberries in a punnet? _____

Times of play

2. a) How many hours is Wimbledon open each day? _____



b) How many seats in Centre Court? Round this to the nearest 100. _____

When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 1 (continued)

Dimensions

3. a) What is the **total area of grass** in the Centre Court stadium? _____ m²



b) Which stadium has the largest area? Centre Court or Court No 1? _____



c) i. What shape is No 1 Court stadium? ii. What is its perimeter? i. _____ ii. _____



d) The relationship between the width and length of a doubles court can be shown as 36:78

Simplify this ratio. _____ : _____




e) i. Now write a similar ratio (width: length) for a singles court. _____ : _____

ii. Simplify this ratio. _____ : _____



f) Grass is cut to 8mm during the Championships. What is this in cm? _____ cm

When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 1 (continued)

Balls

4. a) Write the total number of balls used in words.

b) How many tins of balls are used during Wimbledon fortnight? _____



c) For how many years have yellow balls been used at Wimbledon? _____



Staff

5. a) What percentage of total staff (use a figure of 6000) are catering staff? _____ %



b) Now write your answer as a simplified fraction and as a decimal. _____



Catering

6. a) An average banana weights 150g. Estimate the number of bananas supplied. _____



b) Round your answer to the nearest thousand. _____

When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 2

Strawberries and catering

1. a) Calculate the approximate weight of strawberries in a punnet. _____ g



b) Calculate how much cream is served with each punnet of strawberries. Assume that every punnet is served with cream. Give your answer to the nearest millilitre. _____ ml



c) What was the modal cost of strawberries from 1995-2002? _____



Staff

2. a) What percentage of total staff (use a figure of 6000) are stewards? _____ %



b) Now write your answer as a fraction. _____



Time

3. a) Centre Court opens at 1pm and closes at 9pm.
How many minutes is this over the entire fortnight? _____



When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 2 (continued)

Catering

4. a) What degree of accuracy is **most likely** to have been used to round the figures for

i) Bottles of water Rounded to the nearest _____

ii) Meals served Rounded to the nearest _____

b) How many **litres** of beer and lager were served in 2015? _____



1 litre = 1.76 pints

c) Round your answer to a sensible degree of accuracy _____

d) i. What is the ratio of sales of fish & chips to frozen yoghurt? _____ : _____

ii. In 2017 fish & chips sales increase to 18,000.

Frozen yoghurt sales increase in the same proportion.

How many frozen yoghurts are sold in 2017? _____



Balls

5. a) Write the formula for converting degrees Fahrenheit to Celsius as a word formula.

Fahrenheit to Celsius

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$$

b) Balls are stored at 68°F. What is this in degrees Celsius? _____ °C



When you see  you must show your working out even if you use a calculator.

Functional Maths – Level 2 (continued)

Balls (continued)

c) If all the used balls are sold for charity how much money will be made? _____



Dimensions

6 a) During Wimbledon fortnight, the grass is _____ percent shorter than it is in May.



b) An air conditioning engineer needs to know the volume of Centre Court when the cover is on.
Calculate the volume in cubic metres. (Assume that Centre Court is a cuboid). _____ m³



ft is an abbreviation for foot


1 foot = 30.48 cm

c) i. What is the length and width of a doubles court in metres? _____ m x _____ m
Give your answer to 1 decimal place.



ii. Use your answer to calculate the area of a doubles court in square metres. _____ m²
Give your answer to the nearest whole square metre.



d) What percentage of the grass in Centre Court is covered by the court? _____ %
(Your calculations from c. above and Level 1 Q3a will help you). 

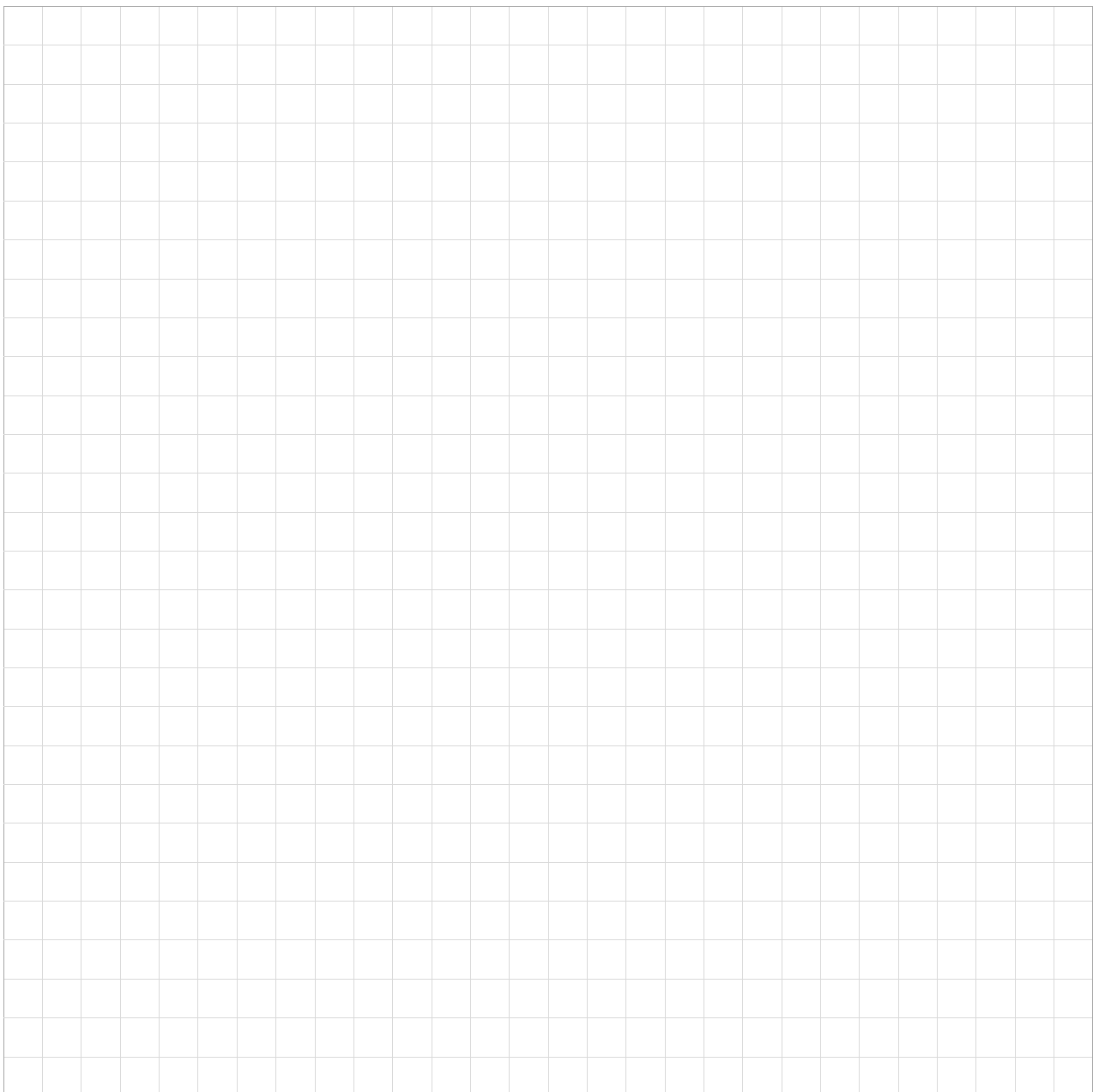
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Functional Maths – Level 2 (continued)

Dimensions (continued)

e) Use previous calculations and information on page 1 to create a drawing of the Centre Court stadium.

- You must show the stadium, the grassed area and the perimeter of the court.
- Round all your measurements to the nearest 5 metres before creating your drawing.
- Assume the grassed area is located exactly in the middle of the stadium.
- Assume Centre Court is located *roughly* in the middle of the entire grassed area.
- Use a scale of '2 squares represent 10 metres' on the grid below.
- Label the drawing with its life size dimensions. Use only metric units.

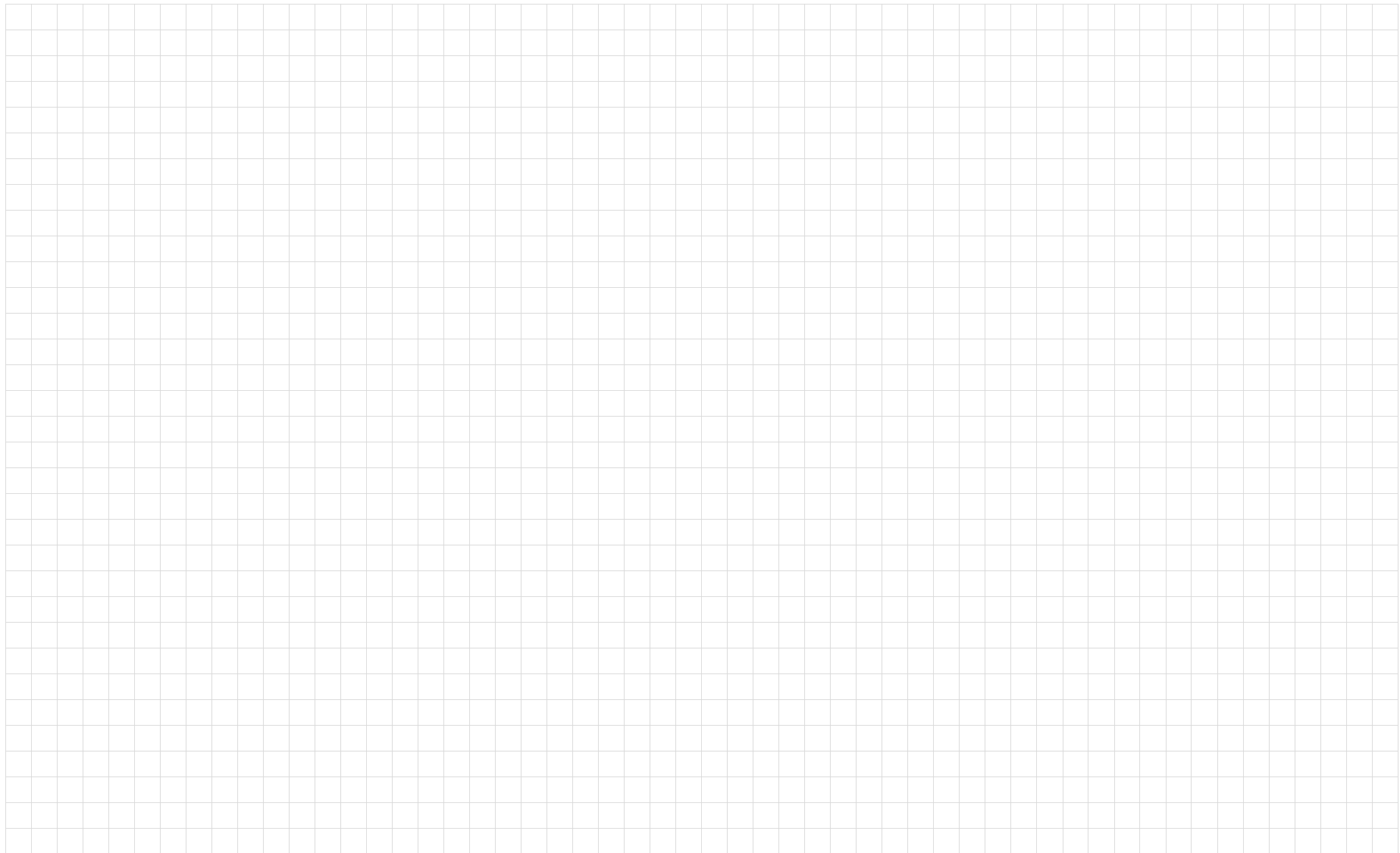


f) Comment on your drawing. Are you surprised by anything?

Wimbledon Facts & Figures

Name _____ Date _____

Title: _____



1a. ii) Use your line graph to help you write two sentences about the price of strawberries at the Wimbledon Championships. _____