Class/Homework
SOLUTIONS

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#15, #16, #17, #18

WS 170

15. The results of the student council election are displayed on a circle graph. Five hundred students voted. The student with the most votes was named president.

a) Which student was named president? How do you know?

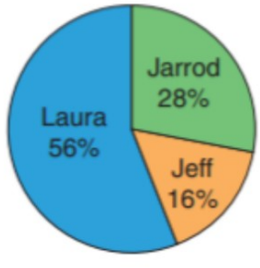
Laura since it has the largest sector.

b) How many votes did each candidate receive?

c) Write 2 other things you know from the graph.

- Jarrod came in 2nd and Jeff last.
- Laura received twice as many votes than Jarrod

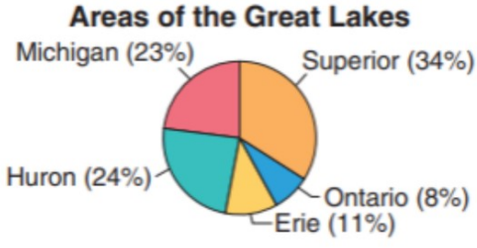
Student Council Election Results



b)

Laura	Jarrod	Jeff
56% of 500	28% of 500	16% of 500
0.56 x 500	0.28 x 500	0.16 x 500
280	140	80

16. This circle graph shows the surface areas of the Great Lakes.



a) Which lake has a surface area about $\frac{1}{4}$ of the total area?

a) 1/4 is 25% and Lake Huron has the percent closes to 25%

b) Explain why Lake Superior has that name.

b) It has the largest area

c) The total area of the Great Lakes is about 244 000 km^2. Find the surface area of Lake Erie.

c) If Total area is 244 000 km^2 then

Area of Lake Erie = 11% of 244 000 km^2

= 0.11 x 244 000 km^2

= 26840 km^2

17. This table shows the approximate chemical and mineral composition of the human body.

Component	Percent
Water	62
Protein	17
Fat	15
Nitrogen	3
Calcium	2
Other	1

62 + 17+15+3+2+1 = 100%

Sector angle Water
= 62% x 360°
= 0.62 x 360°
= 223.2°

Sector angle Protein
= 17% x 360°
= 0.17 x 360°
= 61.2°

Sector angle Fat
= 15% x 360°
= 0.15 x 360°
= 54°

Sector angle Nitrogen
= 3% x 360°
= 0.03 x 360°
= 10.8°

Sector angle Calcium
= 2% x 360°
= 0.02 x 360°
= 7.2°

Sector angle Other
= 1% x 360°
= 0.01 x 360°
= 3.6°

a) Draw a circle graph to display these data.

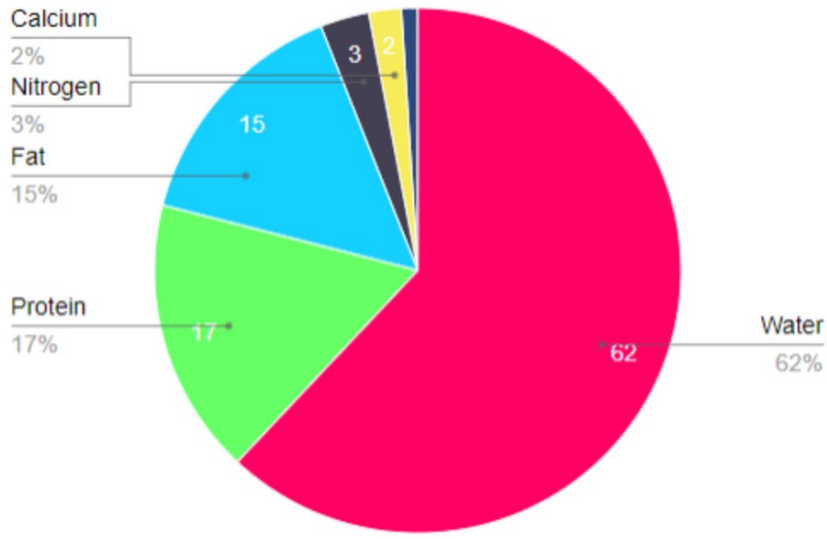
b) Jensen has mass 60 kg. About how many kilograms of Jensen's mass is water?

Jensen's water mass

62% of 60

=0.62 x 60g

=37.2g



18. Here are the top 10 point scorers on the 2006 Canadian Women's Olympic Hockey Team. The table shows each player's province of birth.

Manitoba	Saskatchewan
Botterill	Wickenheiser
Quebec	**Ontario**
Ouellette Goyette Vaillancourt	Apps Campbell Hefford Piper Weatherston

a) What percent was born in each province?

b) Draw a circle graph to display the data in part a.

a) Manitoba

1/10 = 0.10 = 10%

Sector angle
10% of 360°
= 0.10 x 360°
= 36°

Saskatchewan

1/10 = 0.10 = 10%

Sector angle
10% of 360°
= 0.10 x 360°
= 36°

Quebec

3/10 = 0.30 = 30%

Sector angle
30% of 360°
= 0.30 x 360°
= 108°

Ontario

5/10 = 0.50 = 50%

Sector angle
50% of 360°
= 0.50 x 360°
= 180°

b)