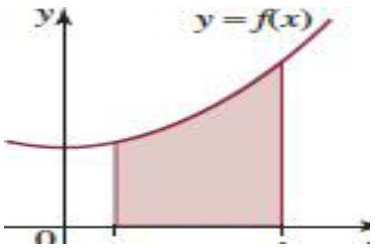
Week 10
Term 2
2015

Learning Brief

SM3 Integrals and Special Functions

Goals



By the end of this week, you should be able to:

- Understand and use definite integrals to find the further areas area between curves and the x axis and the y axis
- Understand and use definite integrals to find the area between two curves

Theoretical Components

JacPlus eBook *Year 12 Maths Quest Methods* (dark blue book) Chapter 9

View the following video
Areas about the x axis:
http://www.youtube.com/watch?v=DRFyNHdVgUA

Read worked examples 32 and 33

View the following video
Areas about the y axis:
http://www.youtube.com/watch?v=70NQ3ISYihw

Practical Components

JacPlus eBook *Year 12 Maths Quest Methods* (dark blue book)
Exercises 9G and 9H

Textbook *Cambridge Unit 3 Year 11*
Exercise 11E and 11F

Use your CAS to find definite integrals
http://www.classpad.com.au/

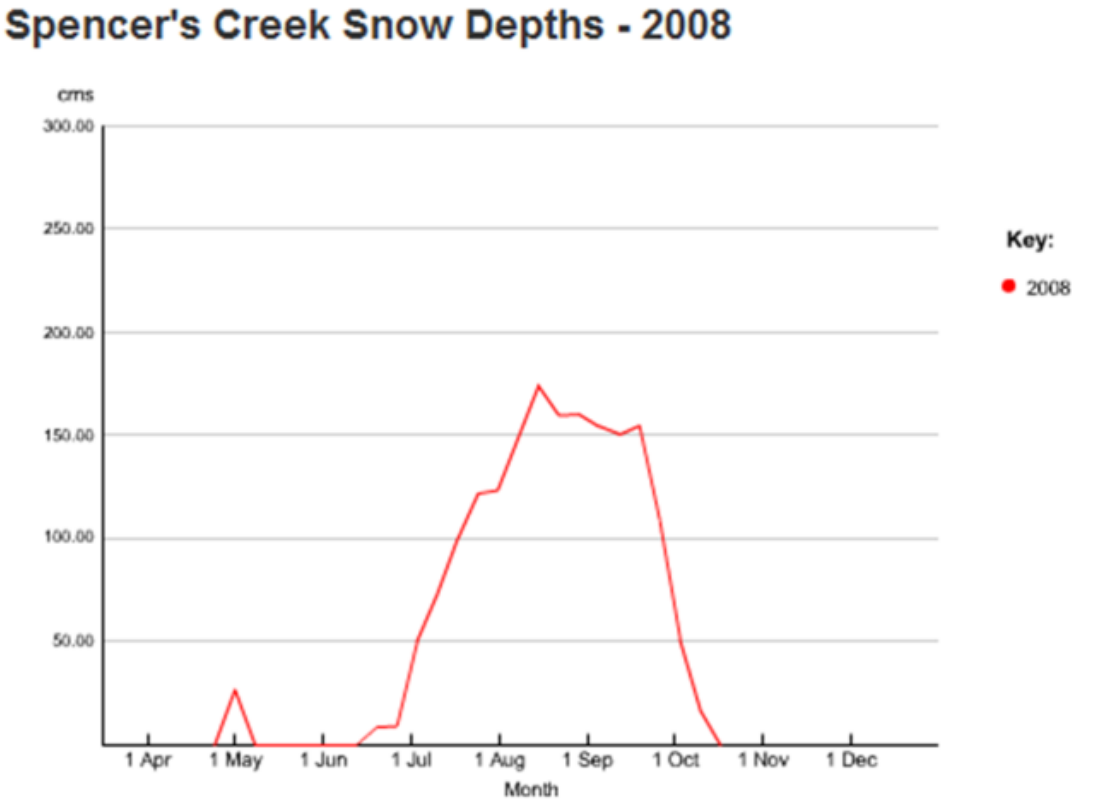
Investigation

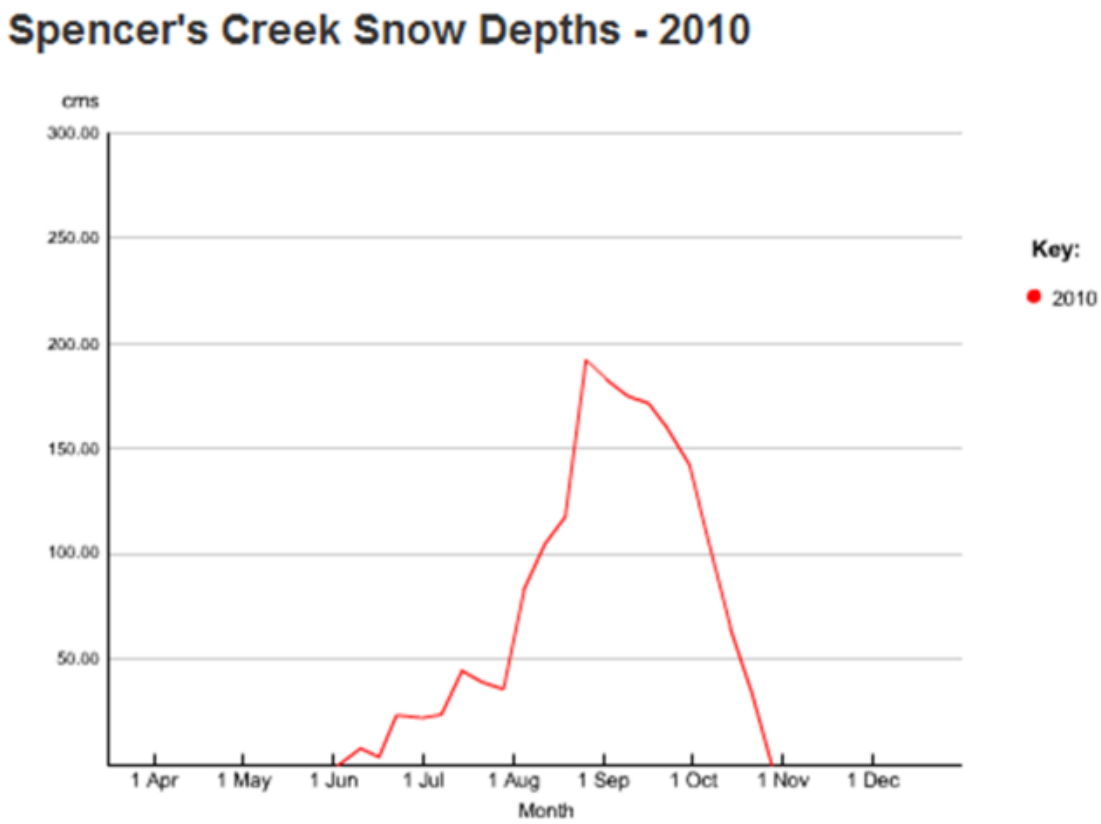
Textbook *Cambridge Unit 3 Year 11*
Exercise 11E Questions 11 and 16

QFO

Quiz/Forum/Other

Each winter, the Snowy Mountains Authority makes regular measurements of the depth of snow on the ground in a selected area near some of the major ski resorts. A local newspaper has published the following graphs snow depth of the 2008 and 2010. Skiers and other visitors find it interesting to compare the graphs for different years to debate which was the best year for snow was and which was the worst.
Study the graphs shown below.





Decide which you think were the best and the worst of the years shown. Think about how you might decide which year the 'best' was for snow and which was the 'worst'.