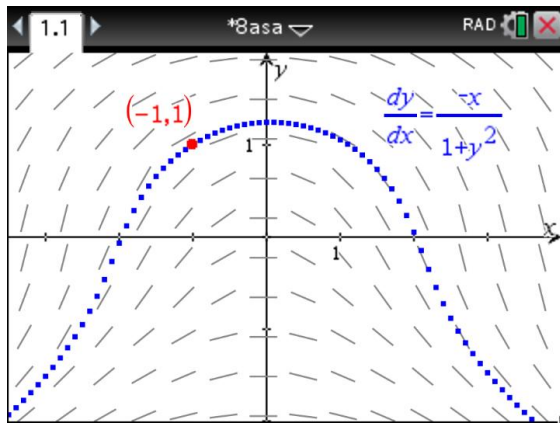


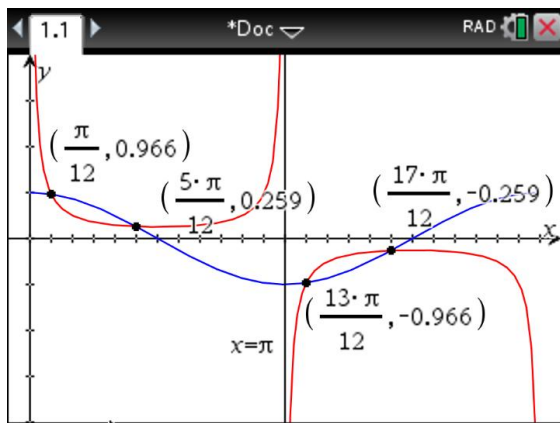
Sample solutions to the 2017 VCAA papers

Question 8a (Specialist Mathematics Examination 1)



When $y = 0$, $x \approx 1.9$

Multiple-Choice Question 2 (Specialist Mathematics Examination 2)



E

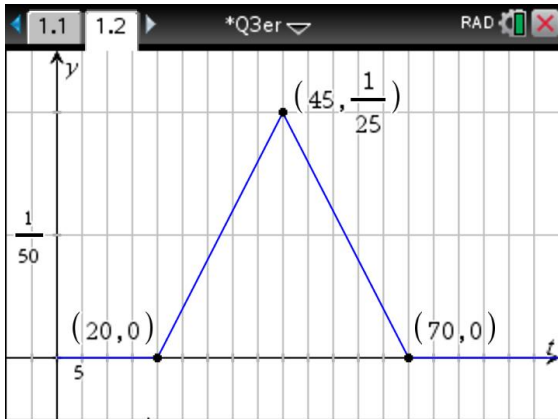
Question 1 (Mathematical Methods Examination 1)

- a. $f'(x) = \frac{(x+2) \times 1 - x \times 1}{(x+2)^2} = \frac{2}{(x+2)^2}, x > -2$
- b. $g'(x) = 3(2 - x^3)^2 \times -3x^2 = -9x^2(2 - x^3)^2$
 $g'(1) = -9(2 - 1)^2 = -9$

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Sample solutions to the 2017 VCAA papers

Extended-Response Question 3a (Mathematical Methods Examination 2)



Multiple-Choice Question 3 in Data Analysis (Further Mathematics Examination 1)

| | A | B | C | D |
|----|------------------|-----------------------------|------------|---|
| 1 | circum | | =OneVar(| |
| 2 | 27.8 | \bar{x} | 27.77 | |
| 3 | 28.4 | Σx | 277.7 | |
| 4 | 25.9 | Σx^2 | 7736.65 | |
| 5 | 28.3 | $s_x := s_{n-...}$ | 1.66403... | |
| 6 | 31.5 | $\sigma_x := \sigma_{n...}$ | 1.57863... | |
| C5 | =1.6640312497066 | | | |

D

Extended-Response Question 1ci in Matrices (Further Mathematics Examination 2)

| | |
|--|--|
| $\begin{bmatrix} 35 & 24 & 60 \\ 28 & 32 & 43 \\ 32 & 30 & 56 \end{bmatrix} \rightarrow m$ | $\begin{bmatrix} 35 & 24 & 60 \\ 28 & 32 & 43 \\ 32 & 30 & 56 \end{bmatrix}$ |
| $m^{-1} \cdot \begin{bmatrix} 491.55 \\ 428 \\ 487.6 \end{bmatrix}$ | $\begin{bmatrix} 4.65 \\ 4.2 \\ 3.8 \end{bmatrix}$ |

Cost of one sandwich is \$3.80

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