Year 12 2 unit General Mathematics
Answers to 2006 CSSA Trial HSC Examination

Section I

1	C	12	A
2	A	13	D
3	A	14	C
4	B	15	B
5	C	16	B
6	D	17	A
7	D	18	D
8	D	19	C
9	C	20	C
10	C	21	B
11	B	22	A

Section II

Question 23

(a) 14.0 m

(b) (i)   13 000 ha

    (ii) Sector, column or picture graph

(c) (i)   40 cm

    (ii) 62.8 cm^2

(d) (i) $4019.80

    (ii) 5.03%

Question 24

(a) 17 m

(b) (i)   Melbourne

    (ii) 100 mm

    (iii) The rainfall for Sydney is quite varied with a minimum of 70 mm and a maximum of 130 mm, compared to a much smaller range for Melbourne, from 46 mm to 66 mm. More rain falls in Sydney than Melbourne. Sydney's lowest is about 70 mm, compared to Melbourne's highest of about 66 mm. Melbourne's rainfall is positively skewed with rainfall less than 60 mm. Sydney's rainfall is negatively skewed with most rainfall more than 80 mm.

(c) 25 mammals

(d) (ii) $45028

    (iii) Kurt should not take out the loan because the repayments do not cover the interest charges every month. The loan could never be repaid.

Question 25

(a) (i)   90

    (ii) $\frac{1}{90}$

    (iii) $\frac{5}{9}$

(b) (i)   68%

    (ii) 460 mm

    (iii) 2.5%

(c) (i)   Median = 12.5
       Standard deviation = 2.7

    (ii) Crusaders (142) score more goals than the Bulls (134)

    (iii) The Bulls are the more consistent scorers because they have a lower standard deviation
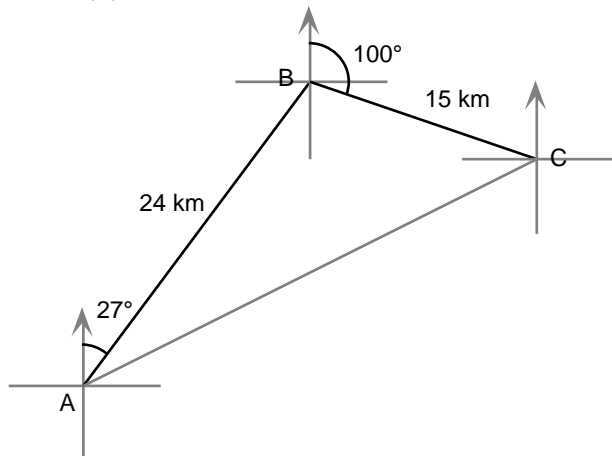
Question 26

(a) (i)   6 mL

    (ii) 12 years

(b) (ii) $7871.93

(c) (i)   93°

    (ii) 5609 nautical miles
       (or 5580 nautical miles)

    (iii) 15 hours 34 minutes 30 seconds
       (or 15 hours 30 minutes)

    (iv) 8:48 am

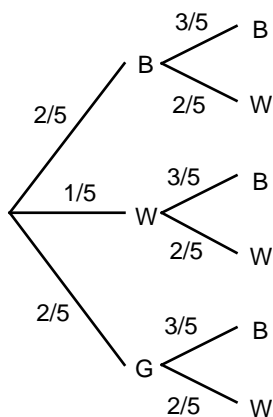**Question 27**

(a) $y = 1\frac{8}{9}$

(b)   (i)   10.9 km

     (ii)

     (iv) 32 km

(c)   7 times

(d) $5210.20

Question 28

(a)   (i)

     (ii) $\frac{13}{25}$

(b)   (i) $5544

     (ii) $1368

(c)   (ii)   Surface area cannot be negative,
          and the equation gives a negative
          value for $x < 0$ and $x > 9$.

     (iii) $x = 6$ cm

     (iv) 144 cm^2