

Year 9 Calculator paper

1. i) 1.234567×10^6

ii) 3.456×10^{-4}

iii) 2.3×10^6

2 i) 9.18×10^8

ii) 3×10^5

iii) 3.4×10^5

3

	T	C	C
T	TT	TC	TC
T	TT	TC	TC
C	CT	CC	CC

i). $P(CC) = 2/9$

ii) $P(\text{1 of each}) = 5/9$

4. $\frac{15.4796}{7.721} = 2.00 (487\dots)$

5 i) $12000 \times 0.9 = \underline{\underline{10800}}$

ii) $12000 \times 0.9^3 = \underline{\underline{8748}}$

iii) 12000×0.9^n

7. $x=4 \Rightarrow 56$

$x=5 \Rightarrow 115$

$4.5 \Rightarrow 82.125$

$4.6 \Rightarrow 88.136$

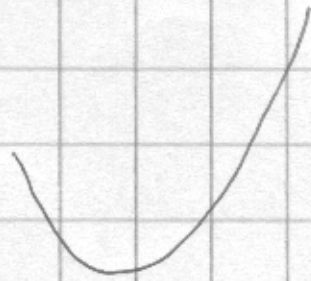
$4.55 \Rightarrow 85.09$

4.6

8. i) $2664 \times 1.04 = \underline{\underline{2770.56}}$

ii) $2828.80 \div 1.04 = \underline{\underline{2720}}$

x	-2	-1	0	1	2	3	4
x^2	4	1	0	1	4	9	16
$-x$	2	1	0	-1	-2	-3	-4
-2	-2	-2	-2	-2	-2	-2	-2
y	4	0	-2	-2	0	4	10



9. i) $\pi \times 4^2 \times 10 = 502.65 \Rightarrow \underline{\underline{503}}$

ii) $502.65 \times 0.6 = 301.592 \Rightarrow \underline{\underline{302}}$

10. $\pi \times 8^2 = 201.06$

$\pi \times 2^2 = 12.566$

$201.06 - 2 \times 12.566 = 175.929 \dots$
 $= \underline{\underline{175.9}}$

11 i) $\frac{m}{14} = \frac{4}{10}$

$m = \frac{4}{10} \times 14 = \underline{\underline{5.6 \text{ cm}}}$

$q = \frac{10}{4} \times 7 = \underline{\underline{17.5}}$

~~11~~ ii) $\frac{x}{10} = \frac{12}{20}$
 (20)
 12+8

$x = \frac{12}{20} \times 10 = \underline{\underline{6 \text{ cm}}}$

12. i) $x = 4$ $y = 2$

$$\begin{cases} 6x + 4y = 32 \\ 6x - 9y = 6 \end{cases}$$

or $9x + 6y = 48$
 $4x - 6y = 4$

2

ii). ~~SP~~ $5x + 2y = 8.70$
 $4x + y = 6.75$

$$8x + 2y = 13.50$$

$$x = 1.60$$

$$y = 0.35$$

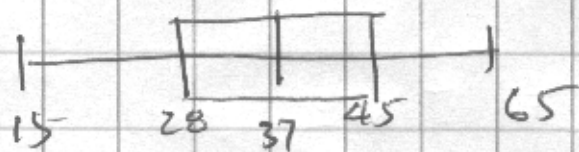
13. a) $35 < u \leq 45$.

b 7 16 28 34 36.

c) graph start 15, 0, \rightarrow 65, 36.

d. i) median. 37 kg
IQR = 16-18.

e



14. i) $15 \sin 60 = \underline{\underline{12.99}} = \underline{\underline{13.0}}$

ii) $\tan^{-1}\left(\frac{9}{7}\right) = \underline{\underline{52.1^\circ}}$

iii). $\frac{12}{\sin 55} = 14.649$. 14.6

$$15. a) i) \frac{9 \times 37}{5} + 32 = \underline{98.6}$$

$$ii) \frac{9 \times 100}{8} + 32 = \underline{\underline{212}}$$

$$b) C = \frac{5}{9} (F - 32)$$

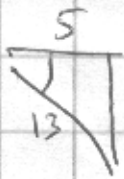
$$i) 0.$$

$$ii) \cancel{32} \cdot \underline{\underline{27.2^\circ}}$$

$$16. i) \sqrt{8^2 + 10^2 + 12^2} = 17.5 \text{ m}$$

|
12.806

$$ii) \cancel{13^2}$$



$$\cos^{-1} \left(\frac{5}{13} \right) = \underline{\underline{67.4^\circ}} \quad 67.38013505$$