2. Reciprocals

1	$\sqrt{\frac{1}{2.456}\times 0.1+4.346^2}$	B_1	✓reciprocal
	$\sqrt{0.04072+18.888}$	B_1	✓square
	$\sqrt{18.929}$ 4.3509	B_1	✓square root

2. $\frac{10}{0.834}\ 1\quad \frac{-3}{129.64}\ 1$

(10 x 1.199) – (3 x 0.007713)
11.99 – 0.923139
11.966861
12.0

3. *807 → 0.001239*
0.0591 → 16.92
5(0.001239) + 4(16.92)
= 67.69

4. *$^{1}/_{3}$ { 2 x 1.5065 + 5 x 1.2004 }*

$^{1}/_{3}$ (3.013 + 6.002) (0.3333)

= 9.015 x 0.3333
= 3.005 (3 dp)

5. *$\frac{12 \times 0.25 - 12.4 \div 0.4 \times 3}{⅛ \text{ of } 2.56 + 8.68}$*
$\frac{3 - 31 \times 3}{0.32 + 8.68}$
$\frac{-90}{9}$
= -10

6. *$\frac{4}{(8.68)^3} + \frac{5}{34.46}^{1/3}$*
$\frac{4}{653.97} + (0.1451)^{1/3}$
4(0.1529) + 0.5255
0.6116 + 0.5255 = 1.1371

7. *$\frac{1}{a}$ = 0.007874 + 0.0869*
= 0.9483
a = 10.55

8. $3.5932 = 12.91$

$\Rightarrow \left(\frac{1}{1.291 \times 10} \right) + 2 \left(\frac{1}{5.26 \times 10^{-1}} \right)$

$= (0.7746 \times 10^{-1}) + 290.1901 \times 10)$

$= 0.07746$

$+ \underline{3.802}$

3.87946

$\sqrt{3.87946} = \sqrt{3.879}$

$= 1.9695$

$= 1.970$(4s.f)

9.

No	s.f	rec
0.6638	6.638×10^{-1}	$0.1500 \times 10 = 1.5000$
0.833	$8.33 \times 10\text{-}1$	$0.1200 \times 10 = 1.200$

$= {}^{1}/_{3} (2 (105) + (1.2))$

$= {}^{1}/_{3} (3 + 6)$

$= {}^{1}/_{3} \times 9 = 3$

10. $3x1.485 + 13x6.410$

$= 4.455 + 83.33$

$= 87.785$

ALT

${}^{30}/_{6.735} + {}^{130}/_{1.56} = 30 \times 0.1485 + 130x\ 0.641$

$= 4.455 + 83.33$

$= 87.785$