Estimating answers

0 min
0 marks

1.   (a) 5.78×10^{-3} 1

      (b)   0.0058   1
             Accept 5.8×10^{-3}

      (c)   0.01   1
             Accept 1×10^{-2}

[3]

2.   310 to 360   2*
      B1 290 to 309 or 361 to 390

[2]

3.   (a)   0.5 not 0.50   1

      (b)   (i) $10 - 6 \times$ c's $0.5 = 7$ 1ft
                  Only ft c's (a) if it is 0.4 (0) or 0.50 or 0

          (ii)   7.0908   1
                  Allow 7.6 or 8 from 0.4

[3]

4.   (a)   1045.28 c.a.o   1

      (b)   10<u>00</u>   1
             Allow 1.0×10^{3}

[2]

5. (a) $\dfrac{0.003 \times 3000}{(10+20)^2}$ c.a.o.   1

No extra zeros allowed. Accept standard form

   (b) 0.01 or 1/100   1

SC1 for answer 0 if 0 is used for 0.003 in (a)

[2]

6. (a) 6.56×10^{-3} 1

   (b) 0.0066   1

Accept 6.6×10^{-3}

   (c) 0.01   1

Accept 1×10^{-2}

[3]

7. 1393000

Allow 1393000.0 or 1.393×10^6

[1]

8. (a) (i) 16 000   1

      (ii) 1.6×10^4 1 ft

          1.5583×10^4 gets 0.

   (b) 0.0037   2

B1 for 0.004 or 0.00372 or 0.003718 seen.

SC1 final answer 0.00370(0)

[4]

9. (a) (i) 18 000   1

      (ii) 1.8×10^4 1 ft

          1.7598×10^4 gets 0

   (b) 0.056   2

B1 for 0.06 or 0.0565 or 0.05649 or 0.057 seen

SC1 for final answer 0.0560(0)

[4]

10. (a) (i) $\dfrac{9 - 3 \times 2}{3}$ 1

allow slip of denominator as 3.0 or 3.00
(not allow zeros in other figures)

(ii) (equals) 1   1ft
their (a)(i) provided order of operation is as seen
and both (a)(i) and (a)(ii) are to a maximum of 1dp
apart from zeros

(b) 1.01   1

[3]

11. (a) 79507   1

(b) 80000   1ft
ft provided (a) ≥ 500 and not a multiple of
1000.

[2]