

Tutorial Sheet - Lesson (6)

Qu (1) Calculate:

(a) $\frac{1}{3.4} + 5.6 =$

(b) $\frac{\sqrt{7.36 \times 10^4}}{6 + 2.5} =$

(c) $(0.321)^5 =$

(d) $(2.63 \times 10^{-3})^4 =$

(e) $\sqrt{\frac{92.4}{21.3}} =$

(f) $\left(\frac{2.4 \times 10^6}{3.8 \times 10^{-3}}\right)^2 =$

(g) $\frac{\sqrt{1.82}}{2.41 \times 9.8} =$

(h) $3.4^{\frac{1}{3}} =$

(i) $\frac{1}{4.6} + \frac{1}{3.14} =$

(j) $2.31 \times \pi \times \sqrt[4]{4.08} =$

(k) $3 \times 10^{-2} + 4.3 \times 10^{-1} =$

(l) $\frac{3.41 - 2.83}{8.3 \times 2.1} =$

Qu (2) Substitution:

(a) Find $D = \sqrt{b^2 - 4ac}$ if $a = 3$ $b = 11$ $c = -2$

(b) Find $A = \pi \left(\frac{D^2}{4} - \frac{d^2}{4}\right)$ if $D = 9 \times 10^{-2}$ $d = 4.16 \times 10^{-2}$

(c) Find $C = \pi \times \sqrt{\frac{D^2 + d^2}{2}}$ if $D = 12.5$ $d = 6.25$

ANSWERS:

Qu (1) (a) 5.89 (b) 31.9 (c) 3.41×10^{-3} (d) 4.78×10^{13} (e) 2.08 (f) 3.99×10^{17}
 (g) 5.71×10^{-2} (h) 1.50 (i) 0.536 (j) 10.3 (k) 0.46 (l) 0.0333
 Qu (2) (a) 12.04 (b) 5×10^{-3} (c) 31

CALCULATOR EX'S

Use a calculator to evaluate, correct to two decimal places in standard form:

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| <p>1. $\frac{586}{0.472 \times 0.0683}$</p> <p>2. $\frac{3.45 \times 10^{-2} \times 1.34}{8.73 \times 10^2 \times 7.69 \times 10^2}$</p> <p>3. $6.71 - 3.84 \times 5.62$</p> <p>4. $\frac{0.00283}{0.431 + 2.34 \times 0.754}$</p> <p>5. $\frac{1.32 \times 8.42 \times 10^{-5}}{0.683 - 3.47}$</p> <p>6. $(42.8 \div 16.9) + (1.73 \times 4.07)$</p> <p>7. $\frac{1}{0.468 + 0.933}$</p> <p>8. $\frac{0.608 \times 0.867}{\sqrt{0.0873 \times 0.681}}$</p> <p>9. $\frac{0.681 \times 1.08}{62.8 + \sqrt{834}}$</p> <p>10. $\frac{41.8 \times 3.41 \times \sqrt{86.4}}{\sqrt{2.35 \times 4.41 + 5.63}}$</p> <p>11. $\sqrt{69.3 + (4.87)^2}$</p> <p>12. $2.83 + \sqrt{8.96} - \frac{1}{0.426}$</p> <p>13. $\frac{8.93 \times 10^2}{(1.32 \times 10^{-2} \times 4.21 \times 10^{-3})}$</p> <p>14. $0.0683 \div \frac{97400}{18800}$</p> <p>15. $0.0684 \times (9.86 - 7.97)$</p> <p>16. $\frac{8.67 \times 10^{-7}}{223 + 10.7 \times 3.86}$</p> | <p>17. $\frac{0.0634 + 0.862}{0.123 - 0.186}$</p> <p>18. $\frac{17.7}{3.41 \times (8.62 - 6.88)}$</p> <p>19. $438 \times \sqrt{9640}$</p> <p>20. $\frac{8.36 - 6.89}{\sqrt{5.34 \times 1.32}}$</p> <p>21. $\frac{6.14 \times \sqrt{9.76}}{80.4 - \sqrt{6.85}}$</p> <p>22. $\frac{\sqrt{81.9 - 6.08}}{\sqrt{4.38 - \sqrt{3.41}}}$</p> <p>23. $(8.93 \times 10^7)^2 \times 1.68$</p> <p>24. $\frac{(89.3)^2 \times \sqrt{683}}{5.86 \times 4.13 \times 3.89}$</p> <p>25. $\frac{89.3 \times 426}{0.073 \times 0.00614}$</p> <p>26. $0.00683 + 4.6 \times 0.125$</p> <p>27. $\frac{3.42 \times 10^{13}}{0.632 + 0.0873}$</p> <p>28. $\frac{2.06 \times 10^{-4}}{85.6 - 3.89 \times 2.43}$</p> <p>29. $\frac{11}{13} - \frac{13}{17}$</p> <p>30. $8.34 - \frac{1}{0.0836}$</p> <p>31. $\sqrt{9.03} - \sqrt{3.19}$</p> <p>32. $\frac{0.691 + 0.483}{\sqrt{0.0681 - 0.0493}}$</p> |
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ANSWERS

1. 1.82×10^4 2. 6.89×10^{-8} 3. -1.49×10 4. 1.29×10^{-3} 5. -3.99×10^{-5} 6. 9.57
 7. 7.14×10^{-1} 8. 2.16×10^{-1} 9. 8.02×10^{-3} 10. 3.31×10^2 11. 9.64×10^2 12. 3.48×10^7
 13. 1.61×10^7 14. 3.37×10^{-8} 15. 1.29×10^{-1} 16. 3.28×10^{-9} 17. -1.47×10 18. 2.98
 19. 4.30×10^4 20. 5.54×10^{-1} 21. 2.47×10^{-1} 22. 9.06×10 23. 1.34×10^{16}
 24. 2.21×10^2 25. 8.49×10^7 26. 5.82×10^{-1} 27. 4.75×10^{13} 28. 2.71×10^{-6}
 29. 8.14×10^{-2} 30. -3.62×10^{-1} 31. 6.70×10^{-1} 32. 8.56×10^6 33. 9.27×10^6 34. 7.61×10
 35. 3.51×10^{-5} 36. 2.57×10^{-1}