Section 6.1a – Practice Problems

EMERGING LEVEL QUESTIONS

Solve for the following Trigonometric Ratios. (Round to 4 decimals)

1. $Sin\ 12° =$ 0.2079	2. $Tan\ 57° =$ 1.5399	3. $Cos\ 123° =$ -0.5446
4. $Cos\ 34° =$ 0.8290	5. $Sin\ 360° =$ 0	6. $Tan\ 270° =$ Error 2 NO SOLUTION
7. $Sin\ 234° =$ -0.8090	8. $Tan\ 2° =$ 0.0349	9. $Cos\ 180° =$ -1
10. $Tan\ 45° =$ 1	11. $Sin\ 45° =$ 0.7071	12. $Cos\ 45° =$ 0.7071

Solve for the following angles. (Round to 1 decimal)

13. $Sin^{-1}(0.8660) =$ 60.0°	14. $Tan^{-1}(0.2354) =$ 13.2°	15. $Cos^{-1}(0.6775) =$ 47.4°
16. $Cos^{-1}(0.1111) =$ 83.6°	17. $Sin^{-1}(0.9999) =$ 89.2°	18. $Tan^{-1}(1.234) =$ 51.0°
19. $Sin^{-1}(0.5628) =$ 34.2°	20. $Tan^{-1}(0.5555) =$ 29.1°	21. $Cos^{-1}(0.6258) =$ 51.3°
22. $Tan^{-1}(1.879) =$ 62.0°	23. $Sin^{-1}(0.1111) =$ 6.4°	24. $Cos^{-1}(0.0001) =$ 60.0°

PROFICIENT LEVEL QUESTIONS

Solve the following proportions for the variable a.

25. $b = \frac{a}{c} \cdot c$ (c)

$a = bc$

26. $b = \frac{c}{a} \cdot a$ (a)

$\frac{ab}{b} = \frac{c}{b}$

$a = \frac{c}{b}$

27. $c = \frac{b}{a+d} \cdot (a+d)$ ((a+d))

$c(a+d) = b$

$ca + cd = b$

$ca = b - cd$

$a = \frac{b-cd}{c}$

28. $d = ab - ac$

$d = a(b-c)$

$a = \frac{b}{b-c}$

29. $ab = ac + d$

$-ac$

$ab - ac = d$

$a(b-c) = d$

$a = \frac{d}{b-c}$

30. $b = \frac{ac}{d} \cdot d$ (d)

$bd = ac$

$a = \frac{bd}{c}$