Worksheet: Trigonometric Functions

Maharashtra State Board · Class 11 · Mathematics · 10 questions · 40 marks

Name: _____	Date: _____	Score: _____ / 40

Q1. Convert 5Â radians into degree measure. *[2 marks]*

Q2. Find the length of an arc that subtends an angle of 60° at the centre of a circle of radius 21 cm (use Â 22/7). *[3 marks]*

Q3. sin x = 3/5, x lies in the second quadrant. Find cos x and tan x. *[4 marks]*

Q4. Evaluate cos(1035°). *[3 marks]*

Q5. Find the value of cos 75°. *[4 marks]*

Q6. Prove that sin(x+y)/sin(x-y) = (tanx+tany)/(tanx-tany), assuming none of the denominators vanish. *[5 marks]*

Q7. If tan x = 3/4 and x lies in the first quadrant, find sin 2x, cos 2x, and tan 2x. *[5 marks]*

Q8. If sin x = 1/3, find sin 3x. *[5 marks]*

Q9. Prove that (sin5x + sin3x)/(cos5x + cos3x) = tan4x. *[5 marks]*

Q10. Express 2 cos5x sin3x as a sum, then evaluate it at x = À12. *[4 marks]*