

Trigonometry

Name: \_\_\_\_\_

Study Guide 20

Class: \_\_\_\_\_

Due Date: \_\_\_\_\_

Score: \_\_\_\_\_

No Work  $\Leftrightarrow$  No Points

Use Pencil Only  $\Leftrightarrow$  Be Neat & Organized

1. (3 points) Find the exact value of  $\cos\left(\sin^{-1}\frac{2}{3}\right)$ .

1. \_\_\_\_\_

2. (3 points) Find the exact value of  $\sin\left(2\sin^{-1}\frac{-2}{3}\right)$ .

2. \_\_\_\_\_

3. (3 points) Find the exact value of  $\tan\left(\frac{1}{2}\cos^{-1}\frac{-3}{5}\right)$ .

3. \_\_\_\_\_

4. (3 points) Find the exact value of  $\cot\left(2\cos^{-1}\frac{-3}{7}\right)$ .

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4. \_\_\_\_\_

5. (4 points) Find the exact value of  $\tan\left(\cos^{-1}\frac{3}{5} + \sin^{-1}\frac{5}{13}\right)$ .

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5. \_\_\_\_\_

6. (4 points) Find the exact value of  $\cot\left(\sin^{-1}\frac{3}{5} - \sin^{-1}\frac{5}{13}\right)$ .

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6. \_\_\_\_\_

7. (3 points) Find all solutions for  $\sqrt{2}\cos 2x + 1 = 0$ .

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7. \_\_\_\_\_

8. (3 points) Find all solutions for  $\tan \frac{x}{2} - \sqrt{3} = 0$ .

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8. \_\_\_\_\_

9. (3 points) Find all solutions for  $2 \cos x \cot x = \cot x$ .

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9. \_\_\_\_\_

10. (4 points) Find all solutions for  $\cos x \cot^2 x = \cos x$ .

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10. \_\_\_\_\_

11. (4 points) Find all solutions for  $2 \cos^2 2x - 1 = \cos 2x$ .

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11. \_\_\_\_\_

12. (4 points) Find all solutions for  $\sin^2 2x + 1 = -2 \sin 2x$ .

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12. \_\_\_\_\_

13. (3 points) Find all solutions for  $\sin 2x \cos 3x = 0$ .

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13. \_\_\_\_\_

14. (3 points) Find all solutions for  $\sin 5x - \sin 3x = 0$ .

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14. \_\_\_\_\_

15. (3 points) Find all solutions for  $\cos 7x + \cos 5x = 0$ .

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15. \_\_\_\_\_