Trigonometry	**Name:** _____
Study Guide 3	**Class:** _____
Due Date: _____	**Score:** _____

No Work ⇔ No Points

Use Pencil Only ⇔ Be Neat & Organized

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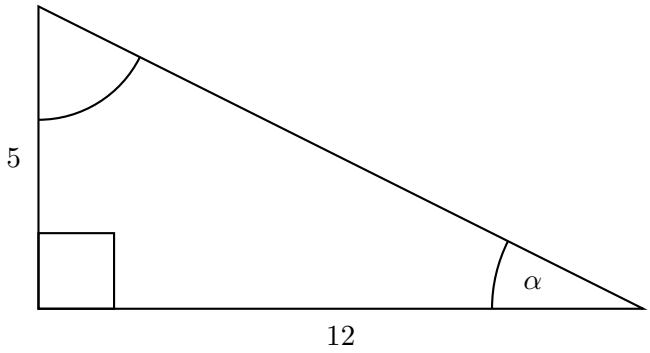
1. (5 points) Find the missing side and then find the value of all six trigonometric function of the indicated angle.



1. _____

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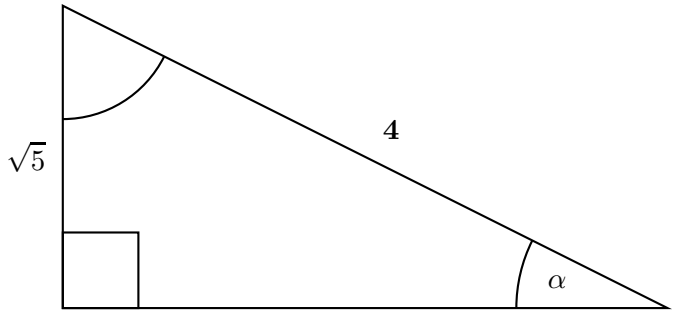
2. (5 points) Find the missing side and then find the value of all six trigonometric function of the indicated angle.



2. _____

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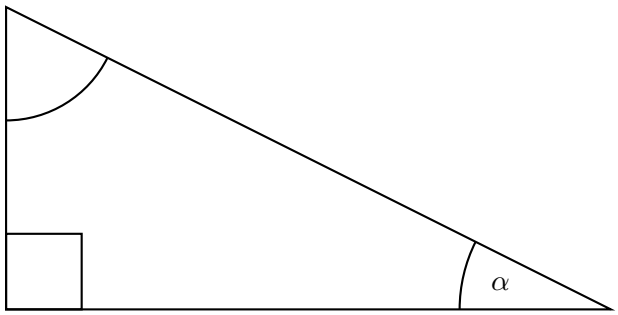
3. (5 points) Given: $\sin\alpha = \dfrac{\sqrt{5}}{3}$**, Use the triangle below, find the missing side and then find the value of all remaining trigonometric function of the indicated angle.**



3. _____

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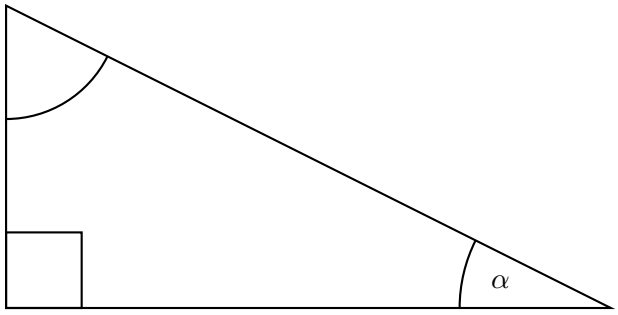
4. (5 points) Given: $\sec\alpha = \sqrt{10}$**, Use the triangle below, find the missing side and then find the value of all remaining trigonometric function of the indicated angle.**



4. _____

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5. (2 points) Simplify: $\tan\alpha \cdot \cot\alpha - \cos\theta \cdot \sec\theta$

5. _____

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6. (3 points) Simplify: $(\sin x + \cos x)^2 - 2\sin x \cdot \cos x$

6. _____

7. (5 points) Given: $\sin\alpha = \dfrac{\sqrt{6}}{6}$**, Find the value of all six trigonometric function of the angle** $-\alpha$ **.**

7. _____

8. (5 points) Given: $\cot\alpha = \dfrac{3}{2}$**, Find the value of all six trigonometric function of the angle** $-\alpha$ **.**

8. _____

9. (5 points) Given: $\sec\alpha = 4$**, Find the value of all six trigonometric function of the angle** $-\alpha$ **.**

9. _____

10. (3 points) Verify: $(1 + \tan\alpha)^2 - \sec^2\alpha = 2\tan\alpha$

10. _____

11. (3 points) Verify: $(\sin x + \cos x)^2 + (\sin x - \cos x)^2 = 2$

11. _____

12. Find the distance between the given points

(a) (2 points) $A(6, 0)$ **and** $B(0, 8)$**.**

(a) _____

(b) (2 points) $A(-2, 3)$ **and** $B(4, 9)$**.**

(b) _____