**Exact Value Trigonometry GREEN**

1. Find the exact values of:

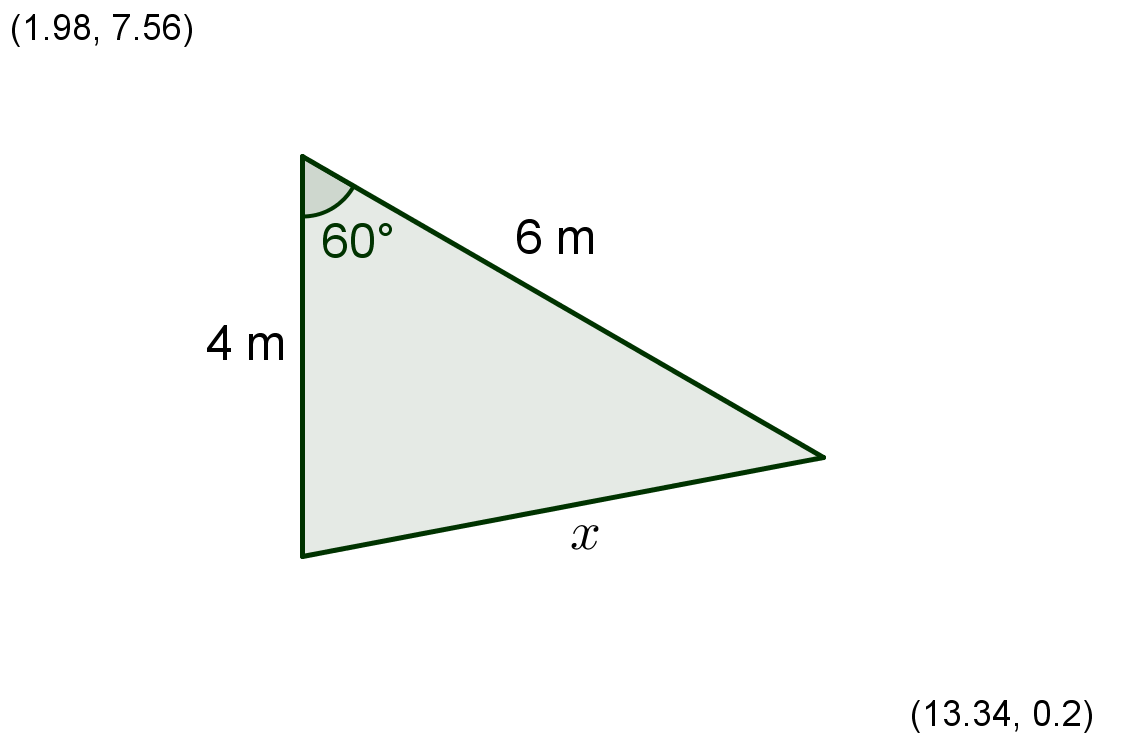
a) sin 30° \_\_\_\_ b) tan 45° \_\_\_\_ c) sin 150° \_\_\_\_

d) sin 330° \_\_\_\_ e) cos 390° \_\_\_\_ f) sin -90° \_\_\_\_

2. If sin θ = ½ , find the values of:

a) cos θ \_\_\_\_ b) tan θ \_\_\_\_

3. Find the value of sin θ when tan θ = 1 \_\_\_\_

4. For the triangle shown opposite, calculate:

a) the area of this triangle \_\_\_\_ m²

b) the exact length of the third side, x \_\_\_\_ m

5. Arrange the following in order of size starting with the smallest:

sin 10° sin 90° sin 135° sin 270°

Justify your answer.

\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

**Exact Value Trigonometry AMBER**

Remember the graphs are periodic and symmetrical (excluding tangent!)

1. Find the exact values of:

a) sin 30° \_\_\_\_ b) tan 45° \_\_\_\_ c) sin 150° \_\_\_\_

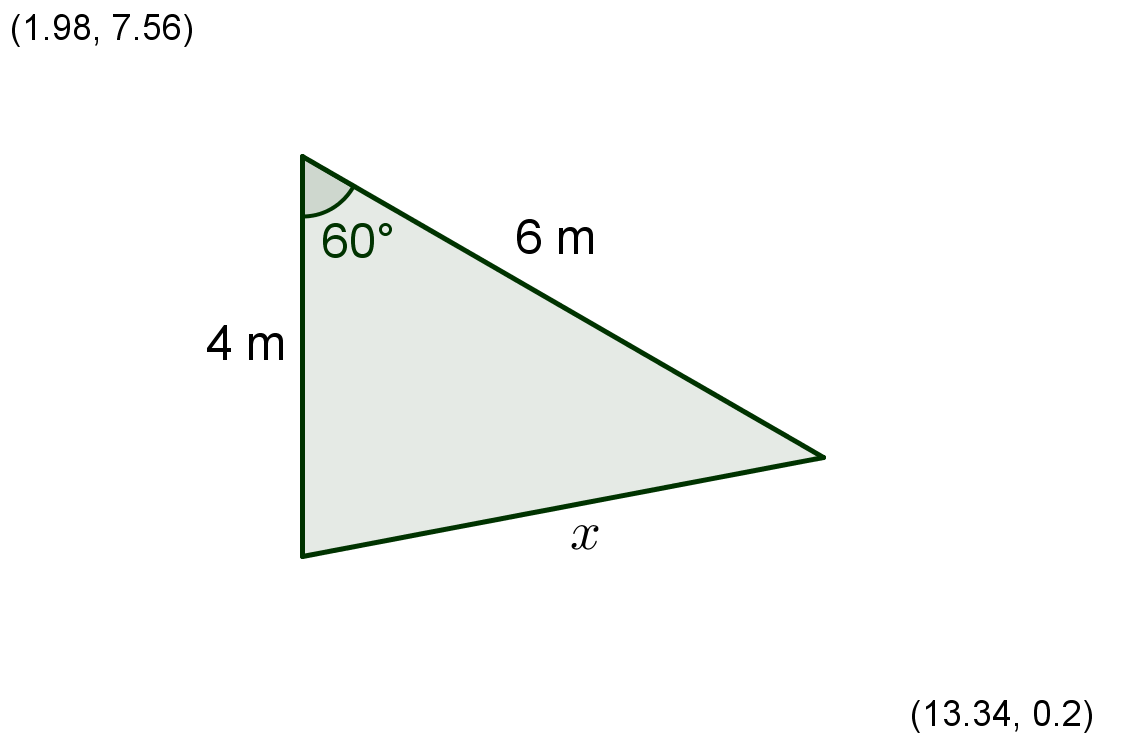
d) sin 330° \_\_\_\_ e) cos 390° \_\_\_\_ f) sin -90° \_\_\_\_

2. If sin θ = ½ , find the values of:

Use your table!

a) cos θ \_\_\_\_ b) tan θ \_\_\_\_

3. Find the value of sin θ when tan θ = 1 \_\_\_\_

4. For the triangle shown opposite, calculate:

a) the area of this triangle \_\_\_\_ m²

Area = ½ a b sin C

b) the exact length of the third side, x \_\_\_\_ m

a² = b² + c² - 2bc cos A

5. Arrange the following in order of size starting with the smallest:

sin 10° sin 90° sin 135° sin 270°

Justify your answer.

\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

**Exact Value Trigonometry RED**

Remember the graphs are periodic and symmetrical (excluding tangent!)

1. Find the exact values of:

a) sin 30° \_\_\_\_ b) tan 45° \_\_\_\_ c) sin 150° \_\_\_\_

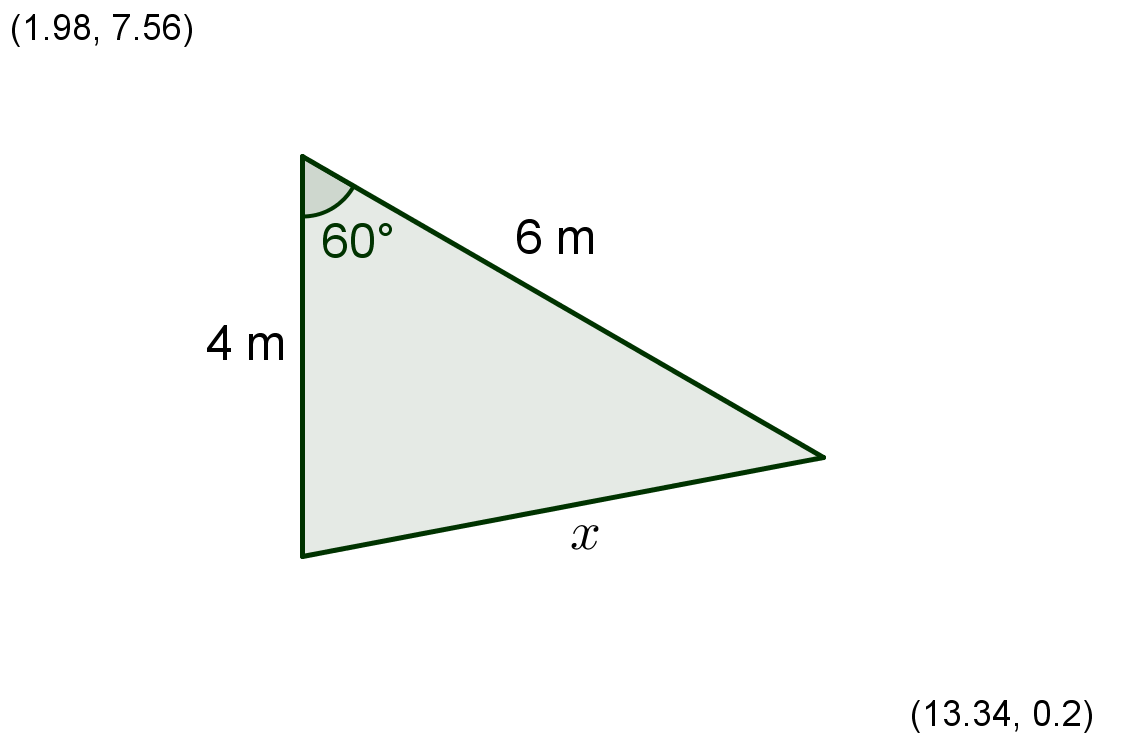
d) sin 330° \_\_\_\_ e) cos 390° \_\_\_\_ f) sin -90° \_\_\_\_

2. If sin θ = ½ , find the values of:

Use your table!

a) cos θ \_\_\_\_ b) tan θ \_\_\_\_

3. Find the value of sin θ when tan θ = 1 \_\_\_\_

4. For the triangle shown opposite, calculate:

a) the area of this triangle \_\_\_\_ m²

Area = ½ a b sin C

Area = ½ x 4 x 6 x sin 60

b) the exact length of the third side, x \_\_\_\_ m

a² = b² + c² - 2bc cos A

x² = 4² + 6² - (2 x 4 x 6 x cos 60)

5. Arrange the following in order of size starting with the smallest:

Remember the graphs are periodic and symmetrical (excluding tangent!) and use your table.

sin 10° sin 90° sin 135° sin 270°

Justify your answer.

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