

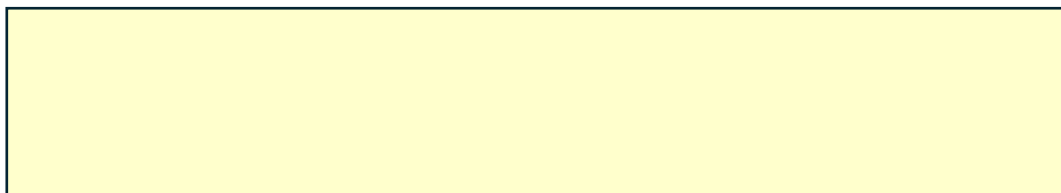
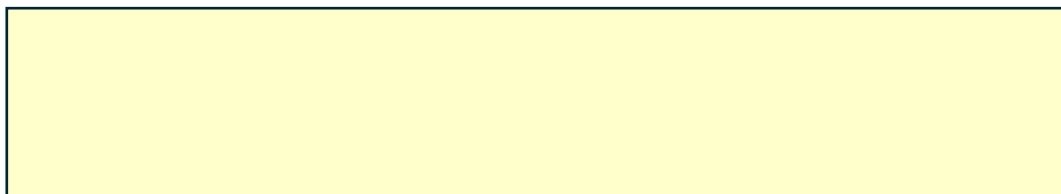
**Sum/Difference Formulas**

Try when \_\_\_\_ is not a \_\_\_\_\_ and without a \_\_\_\_\_.

Check if \_\_\_\_\_ is either the \_\_\_\_\_ or \_\_\_\_\_ of \_\_\_\_\_ angles.

Let \_\_\_\_ = 1<sup>st</sup> angle

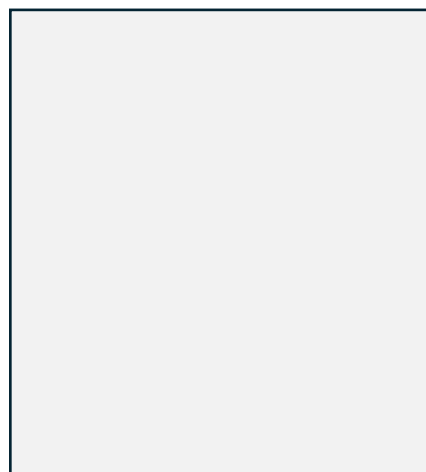
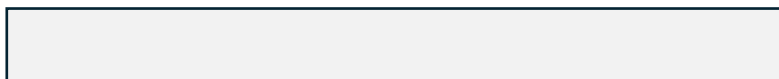
Let \_\_\_\_ = 2<sup>nd</sup> angle

**Sine – Sum and Difference****Cosine – Sum and Difference**

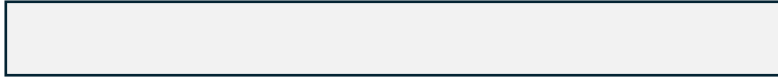
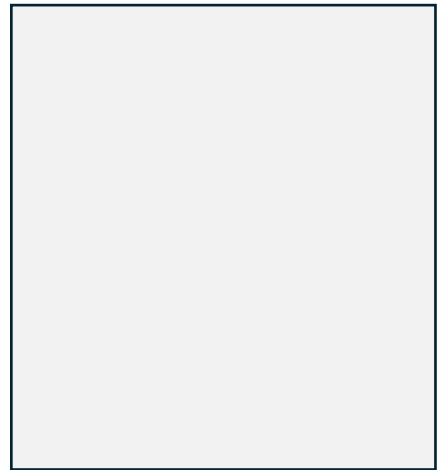
Typically, \_\_\_\_\_ of these formulas are provided at the final exam. Use the \_\_\_\_\_ for others.

ex. Find the \_\_\_\_\_ value of \_\_\_\_\_.

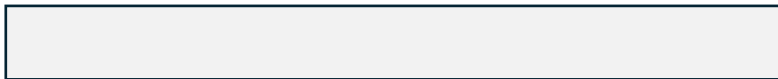
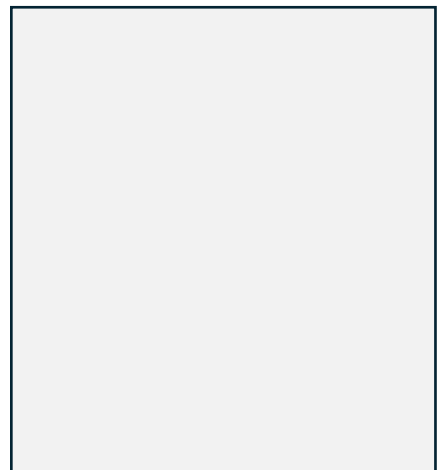
express \_\_\_\_\_ as



Do: Find the \_\_\_\_\_ value of \_\_\_\_\_.

A horizontal rectangular box with a light gray fill and a dark blue border, intended for the student's answer.A vertical rectangular box with a light gray fill and a dark blue border, intended for the student's answer.**Working in Radians**

ex. Find the \_\_\_\_\_ value of \_\_\_\_\_.

A horizontal rectangular box with a light gray fill and a dark blue border, intended for the student's answer.A vertical rectangular box with a light gray fill and a dark blue border, intended for the student's answer.

**Using the Formulas with Non-Standard Angles****Solving in the Other Direction**

ex. Find the EXACT value of

ex. Find the EXACT value of

ex. Find the EXACT value of



ex. Verify

ex. Given \_\_\_\_\_ where \_\_\_\_ is in \_\_\_\_\_ and  
\_\_\_\_\_ where \_\_\_\_ is in \_\_\_\_\_ find the EXACT value of:

a.

b.

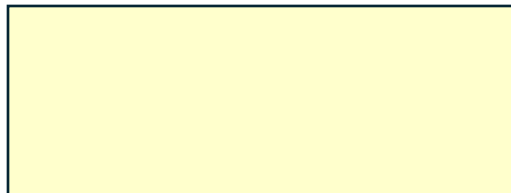
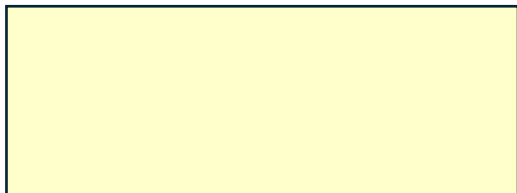
ex. Given \_\_\_\_\_ where \_\_\_\_ is in \_\_\_\_\_ and  
\_\_\_\_\_ where \_\_\_\_ is in \_\_\_\_\_ find the EXACT value of:

a.

b.

### Tangent Sum/Difference

Although formulas exist for \_\_\_\_\_, it's easier to solve with identities:



Revisit previous example:

c.

**Alternate Notation**

ex. Given \_\_\_\_\_ where \_\_\_\_\_ and  
\_\_\_\_\_ where \_\_\_\_\_ find the EXACT value of:

a.

b.

c.