Trig Hand-Jive

1) Hold up your LEFT hand as shown - notice how your fingers coincide with the 0,30,45,60,90 angles in Quadrant 1.
2) Draw a number 2 in your palm (all answers will be divided by 2.)
3) The first step in finding the cosine of an angle is to bend in the finger of the specified angle and count the number of fingers ABOVE the bent finger.
4) Next, take the square root of the number of fingers above the bent finger and divide by two (remember the 2 in your palm.).
5) The first step in finding the sine of an angle is to bend in the finger of the specified angle and count the number of fingers BELOW the bent finger.
6) Next, take the square root of the number of fingers below the bent finger and divide by 2(remember the 2 in your palm.)

$\cos 30^\circ = \sqrt{3}/2$ ← in palm

$\sin 30^\circ = \frac{\sqrt{1}}{2} = \frac{1}{2}$

7) To find the Tangent of an angle, merely flip your hand over so you are looking at the back side of your hand . Take the square root of the number of fingers above the bent finger (which is really the sine of your angle since you flipped your hand) divided by the square root of the number of fingers below the bent finger (this is the cosine of your angle). Obviously this works since we know $\tan\theta = \frac{\sin\theta}{\cos\theta}$.

I would show my classes this only after they have mastered the unit circle. It is a little trick that they can fall back in when in a rut.

Have fun doing the Trig Hand Jive!!!! ☺

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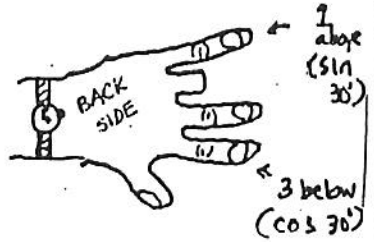

$\tan 30^\circ = \frac{\sqrt{1}}{\sqrt{3}} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

Workshop