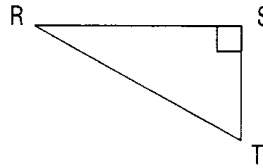A third example of a **trigonometric ratio** is the **cosine** ratio.

In a right triangle, the cosine ratio of an acute angle is defined as

$$\frac{\text{side adjacent to the angle}}{\text{hypotenuse}}.$$

In $\triangle$RST, the cosine ratio of $\angle$R is $\dfrac{RS}{RT}$.

In $\triangle$RST, the cosine ratio of $\angle$T is $\dfrac{ST}{RT}$.

Use a calculator to find the cosine of each angle, to three decimal places.

1. 23° _____   **2.** 79° _____

3. 30° _____   **4.** 50° _____

5. 43° _____   **6.** 7° _____

Find $\angle$E, to the nearest degree.

7. cos E = 0.982 ____   **8.** cos E = 0.174 ____

9. cos E = 0.454 ____   **10.** cos E = 0.777 ____

11. cos E = 0.999 ____   **12.** cos E = 0.009 ____

Find $\angle$V, to the nearest degree.

13. $\cos V = \dfrac{1}{4}$ _____   **14.** $\cos V = \dfrac{7}{8}$ _____

15. $\cos V = \dfrac{2}{3}$ _____   **16.** $\cos V = \dfrac{1}{11}$ _____

17. $\cos V = \dfrac{14}{15}$ _____   **18.** $\cos V = \dfrac{6}{13}$ _____

Calculate $\cos H$, $\angle H$, $\cos J$ and $\angle J$. Round each angle measure to the nearest degree.
<u>HINT</u>: *Use the Pythagorean Theorem.*

19.

_____

20.

_____

Calculate w, to the nearest tenth

21.

_____

22.

_____

23.

_____

24.

_____

25.

_____

26.

_____