# Worksheet for Calculating Latitude and Longitude 



## Your

To Determine Latitude:
Work
Example

1. Look at the right side (upper or lower corner) under the map name, or the second of two numbers separated by " $x$ " to find the height scale (latitude) of the topo map.

If "7.5 Minute Series," enter 450
If " 15 Minute Series," enter 900
If " $7.5 \times 15$ Minute Series," enter 450

## Your Calculation

$\qquad$ 10 cm
$450 \div 10=45$
$47^{\circ} 30^{\prime}$
4.8 cm
$4.8 \times 45=216$
6. Multiply \#5 by \#3 to the nearest whole number.
7. Determine how many times 60 goes into \#6 completely and what is left as the remainder (don't use a calculator for this). These answers will become the minutes and seconds of the latitude.
8. Convert these numbers to minutes and seconds. Minutes are equal to the whole number determined in \#7, or the number of times 60 goes into \#6 completely. In other words, your whole number after the division in the previous step is the number of minutes. Seconds are equal to what is left (remainder) after the division in \#7.
9. Determine the latitude of your site by adding \#4 to \#8.

Deter $\qquad$

$$
\begin{aligned}
& 3 \text { minutes and } \\
& 36 \text { seconds = } \\
& 3^{\prime} 36^{\prime \prime}
\end{aligned}
$$

$47^{\circ} 30^{\prime}+3^{\prime} 36^{\prime \prime}$ $=47^{\circ} 33^{\prime} 36^{\prime \prime}$

## To Determine Longitude:

1. Look at the right side (upper or lower corner) under the map name, or the second of two numbers separated by " $x$ " to find the width scale (longitude) of the topo map.

If "7.5 Minute Series," enter 450
If "15 Minute Series," enter 900
If " 7.5 x 15 Minute Series," enter 900

## Your Calculation

$\qquad$ 10 cm
$\qquad$
3. Divide \#1 by \#2 to the nearest whole number.

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900 \div 10=90
$$

4. Enter the longitude located in the map's lower right hand corner.
5. Using the ruler, measure from your site straight across, to the right hand side of the map (in centimeters).
6. Multiply \#5 by \#3 to the nearest whole number.
7. Determine how many times 60 goes into \#6 completely and what is left as the remainder (don't use a calculator for this). These answers will become the minutes and seconds of the longitude. (The longitude degrees are \#4.)
8. Convert to these numbers to minutes and seconds. Minutes are equal to the whole number determined in \#7, or the number of times 60 goes into \#6 completely. In other words, your whole number after the division in the previous step is the number of minutes. Seconds are equal to what is left (remainder) after the division in \#7.
9. Determine the longitude of your site by adding \#4 to \#8.,
