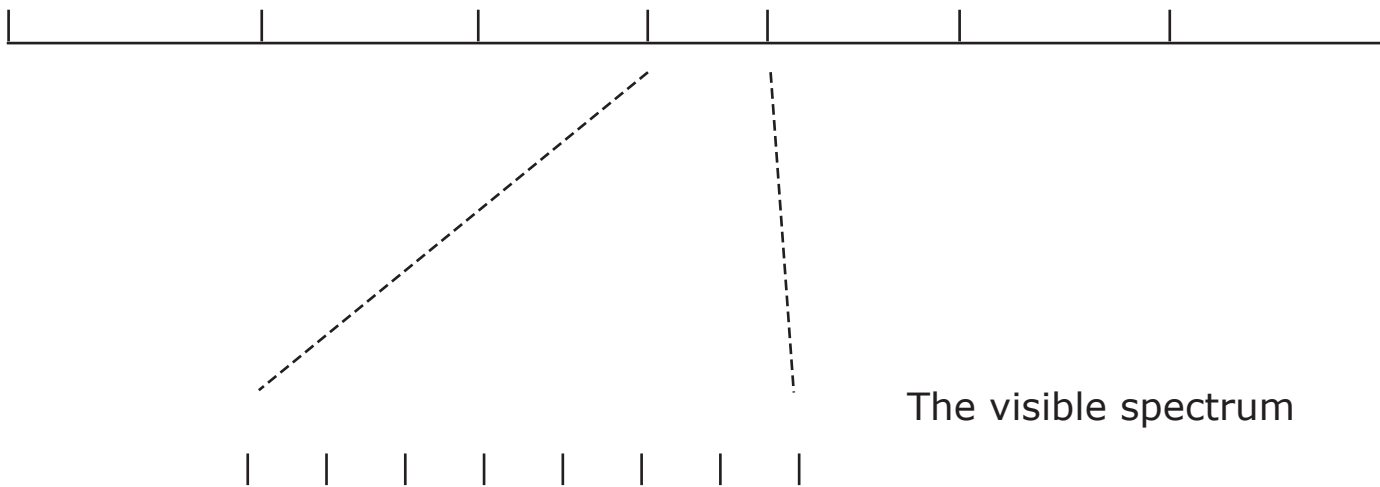


# LIGHT

Kinds of light:



THEMIS filters

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Filters used in video/digital cameras:

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A red filter allows \_\_\_\_\_ light through.

A green filter allows \_\_\_\_\_ light through.

A blue filter allows \_\_\_\_\_ light through.

Additional Notes:

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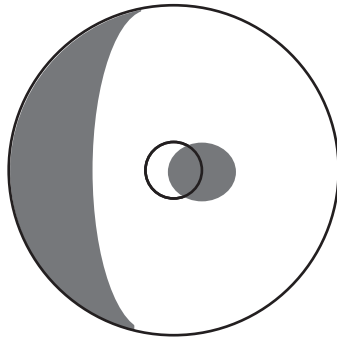
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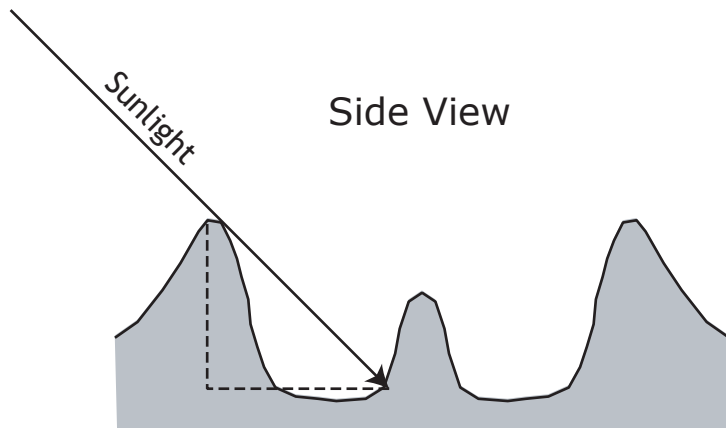
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# Crater Depths and Central Peak Heights

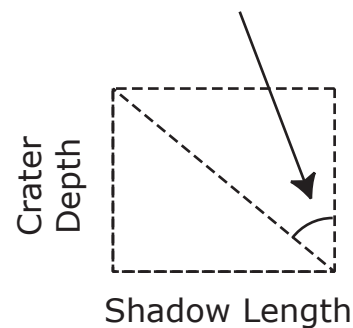
Top View



Side View



Sun angle: \_\_\_\_\_



To find the depth of the crater:

First, convert shadow length from pixels to kilometers

$$\text{Shadow Length (pixels)} \times \text{m per pixel} = \text{Shadow Length (m)}$$

Additional information:

$$\text{Tan} (\text{Sun angle}) = \text{Tangent of Sun angle}$$

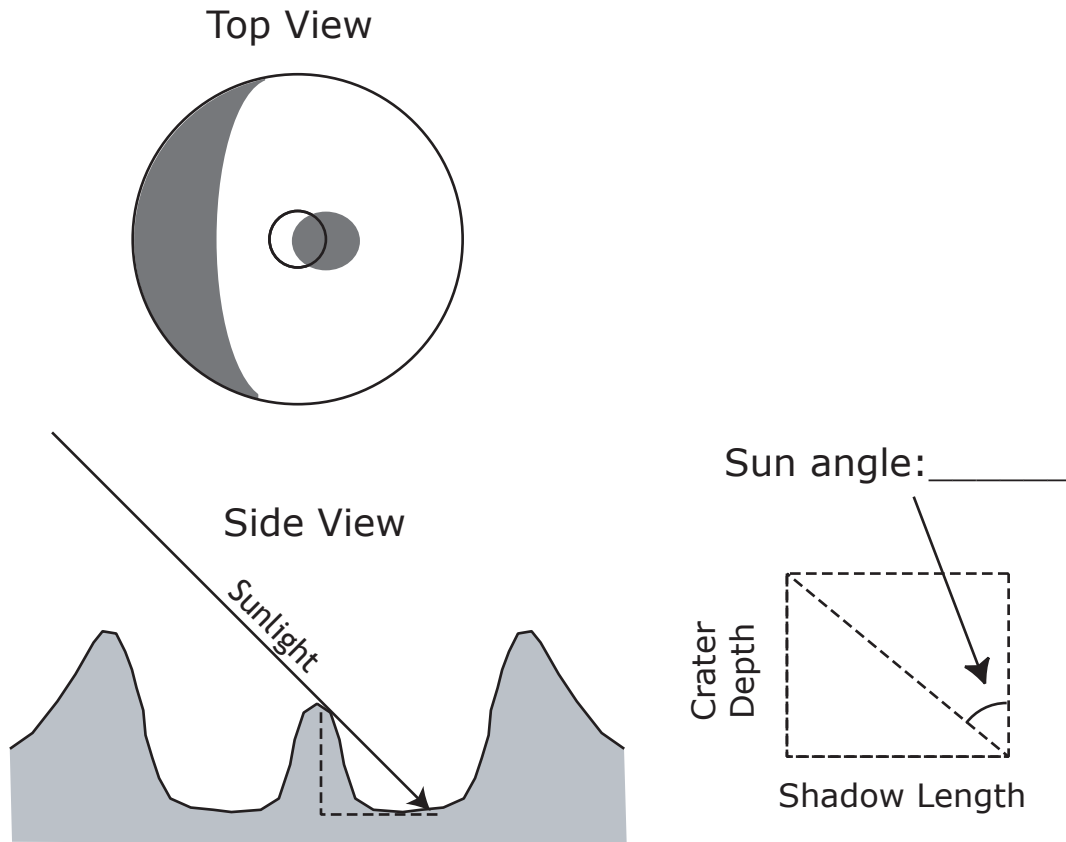
To find crater depth:

$$\text{Shadow Length (m)} \div \text{Tangent of Sun angle} = \text{Crater Depth (m)}$$

How many kilometers is this?

$$\text{Crater Depth (meters)} \div \text{meters per km} = \text{Crater Depth (km)}$$

# Crater Depths and Central Peak Heights (Cont.)



To find the height of the central peak:

First, convert shadow length from pixels to kilometers

$$\text{Shadow Length (pixels)} \times \text{m per pixel} = \text{Shadow Length (m)}$$

Additional information:

$$\text{Tan}(\text{Sun angle}) = \text{Tangent of Sun angle}$$

To find the height of the central peak:

$$\text{Shadow Length (m)} \div \text{Tangent of Sun angle} = \text{Height of Peak (m)}$$

How many kilometers is this?

$$\text{Height of Peak (meters)} \div \text{meters per km} = \text{Height of Peak (km)}$$

# Crater Counts and Relative Ages

Notes

New Mars + a billion years

Newest Region?

*Left side*

*Right side*

*Both sides same age*



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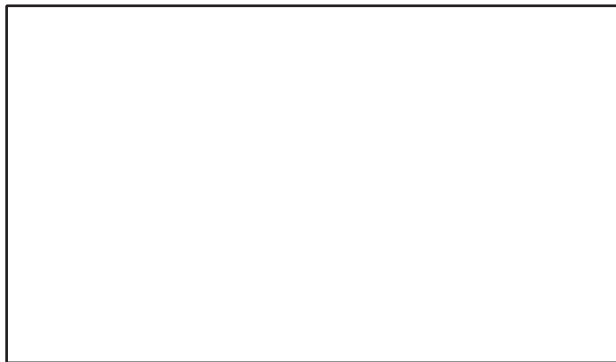
Olympus Mons Erupts

Newest Region?

*Left side*

*Right side*

*Both sides same age*



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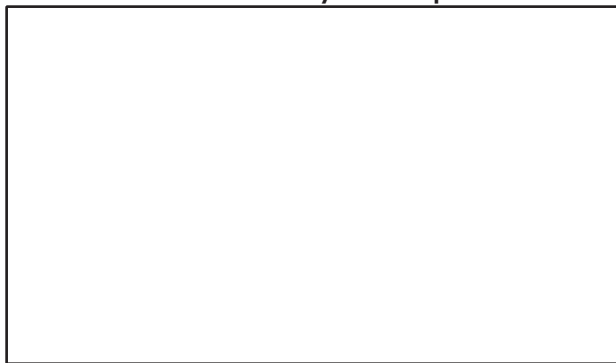
Another billion years passes...

Newest Region?

*Left side*

*Right side*

*Both sides same age*



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Additional Notes:

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