



# $\pi$ IN THE SKY<sup>10</sup>

## ANSWER KEY

### RAD REFLECTION

How much bigger is the surface of Webb's primary mirror than Hubble's?

- 1 Use the formula for area of a circle to compute the area of Hubble's primary mirror.

$$A = \pi r^2$$

$$\pi(1.2 \text{ m})^2 \approx 4.5 \text{ m}^2$$

- 2 Subtract the area of Hubble's primary mirror from the area of Webb's primary mirror.

$$26.4 \text{ m}^2 - 4.5 \text{ m}^2 = 21.9 \text{ m}^2$$

