

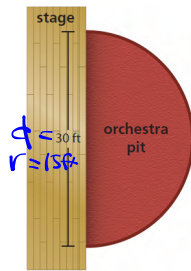
Lesson 8.3b Area of Semi-Circles

8.3b Area of a Semi-circle

$$A = \pi r^2 \leftarrow \text{circle}$$

$$A = \frac{\pi r^2}{2} \leftarrow \text{semi-circle}$$

Ex. 1 Find the area of the semicircular orchestra pit.



$$A = \frac{\pi r^2}{2}$$

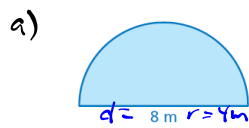
$$A = \frac{3.14 (15 \text{ ft})^2}{2}$$

$$A = \frac{3.14 (225 \text{ ft}^2)}{2}$$

$$A = \frac{706.5 \text{ ft}^2}{2}$$

$$A = 353.25 \text{ ft}^2$$

Ex. 2 Find the area of the semicircle.

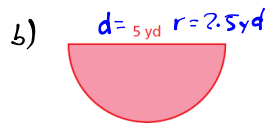


$$A = \frac{\pi r^2}{2}$$

$$A = \frac{3.14 (4 \text{ m})^2}{2}$$

$$A = \frac{3.14 (16 \text{ m}^2)}{2}$$

$$A = 25.12 \text{ m}^2$$



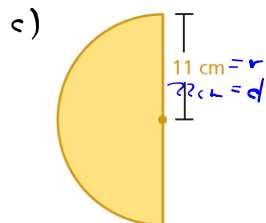
$$A = \frac{\pi r^2}{2}$$

$$A = \frac{3.14 (2.5 \text{ yd})^2}{2}$$

$$A = \frac{3.14 (6.25 \text{ yd}^2)}{2}$$

$$A = \frac{19.625 \text{ yd}^2}{2}$$

$$A = 9.81 \text{ yd}^2$$



$$A = \frac{\pi r^2}{2}$$

$$A = \frac{3.14 (11 \text{ cm})^2}{2}$$

$$A = \frac{3.14 (121 \text{ cm}^2)}{2}$$

$$A = \frac{379.94 \text{ cm}^2}{2}$$

$$A = 189.97 \text{ cm}^2$$