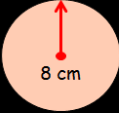
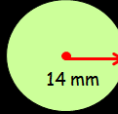


# Outcome 2 - The Area of a Circle

## Bronze examples


Examples... Calculate the area of the following circles...



 $A = 3.14 \times 8 \times 8$   
 $= 200.96 \text{ cm}^2$

$A = 3.14 \times 14 \times 14$   
 $= 615.44 \text{ mm}^2$ 


## Silver examples

Examples... Calculate the area of the following circles...

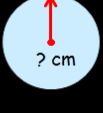

 $A = 3.14 \times 5 \times 5$   
 $= 78.5 \text{ cm}^2$

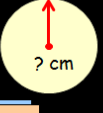
$A = 3.14 \times 12 \times 12$   
 $= 452.16 \text{ mm}^2$ 


**\*\*Half the diameter to get the radius!\*\***

## Gold examples


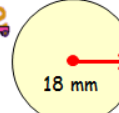
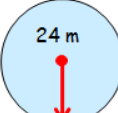


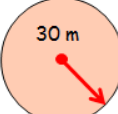
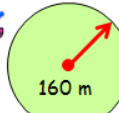


Examples... Calculate the radii of the following circles...

$A = 50.24 \text{ cm}^2$   

 $r = \sqrt{50.24 \div 3.14}$   
 $= 4 \text{ cm}$

$A = 3846.5 \text{ m}^2$   

 $r = \sqrt{3846.5 \div 3.14}$   
 $= 35 \text{ m}$

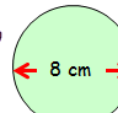


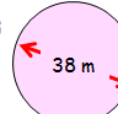

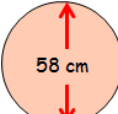
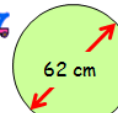


## Bronze Questions

Calculate the area of the following circles...




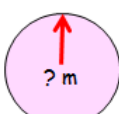

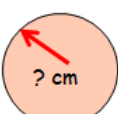

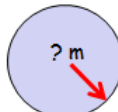

## Silver Questions

Calculate the area of the following circles...

## Gold Questions

Calculate the radii of the following circles...

Formulae:	
Area:	Radius:
$A = \pi \times r^2$	$r^2 = A \div \pi$
	$r = \sqrt{A \div \pi}$

## Bronze Answers

1.  $78.5 \text{ cm}^2$     2.  $1017.36 \text{ mm}^2$     3.  $1808.64 \text{ m}^2$   
4.  $6358.5 \text{ m}^2$     5.  $20\,601.54 \text{ cm}^2$     6.  $2826 \text{ m}^2$   
7.  $80\,384 \text{ m}^2$     8.  $50\,645.06 \text{ mm}^2$     9.  $151\,976 \text{ m}^2$

## Silver Answers

1.  $50.24 \text{ cm}^2$     2.  $200.96 \text{ mm}^2$     3.  $530.66 \text{ cm}^2$   
4.  $1133.54 \text{ m}^2$     5.  $1519.76 \text{ m}^2$     6.  $2640.74 \text{ cm}^2$   
7.  $3017.54 \text{ cm}^2$     8.  $4775.94 \text{ mm}^2$     9.  $1256 \text{ m}^2$

## Gold Answers

1. 2 cm    2. 15 mm    3. 27 cm  
4. 36 m    5. 42 m    6. 53 cm  
7. 66 cm    8. 77 m    9. 84 cm