$\qquad$ Date: $\qquad$

## Area of Circles Assignment

Find the area of the following circle.

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

1. 


2.



$$
A=\frac{\pi d^{2}}{4}
$$

4. 


$\qquad$ Period: $\qquad$ Date: $\qquad$

## Area of Circles Assignment

Complete the table below. Find the area or the radius of the following circles.

|  | Radius | Area |
| :---: | :---: | :---: |
| 5. | 5 |  |
| 6. |  | $9 \pi$ |
| 7. | 16m |  |
| 8. |  | 289]cm ${ }^{2}$ |
| 9. | 25 cm |  |

Complete the table below. Find the area or the diameter of the following circles.

|  | Diameter | Area |
| :---: | :---: | :---: |
| 10. | 18 |  |
| 11. |  | $54 \pi$ |
| 12. | 26m |  |
| 13. |  | 250rcm ${ }^{2}$ |
| 14. | 30 cm |  |

$\qquad$
$\qquad$ Date: $\qquad$

## Area of Circles Assignment

## Solve Problem involving circles.

15. The area of a circle is $121 \pi$. Find its diameter.
16. The diameter of a circle is 22 cm . Find the area of the circle.
17. The radius of a circle is 20 m . Find the area of the circle.
$\qquad$
$\qquad$ Date: $\qquad$

## Area of Circles Assignment

18. The length of the longest leg of a clock is 4 inches. Find the area of the clock.
19. The area of one face of a coin is $113.09 \mathrm{~mm}^{2}$. Find the diameter of the coin.
20. The diameter of a plate is 8 inches. Find the area of the plate.
$\qquad$ Date: $\qquad$

## Area of Circles Assignment

## Answer:

Find the area of the following circle.

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

1. 



Solution:
$A=\pi r^{2}$
$A=\pi 12^{2}$
$A=144 \pi$
2.


Solution:
$A=\pi r^{2}$
$A=\pi 17^{2}$
$A=289 \pi$

$$
A=\frac{\pi d^{2}}{4}
$$

3. 



## Solution:

$$
\begin{aligned}
& A=\frac{\pi d^{2}}{4} \\
& A=\frac{\pi 28^{2}}{4} \\
& A=\frac{784 \pi}{4} \\
& A=196 \pi
\end{aligned}
$$

4. 



Solution:
$A=\frac{\pi d^{2}}{4}$
$A=\frac{\pi 32^{2}}{4}$
$A=\frac{1024 \pi}{4}$
$A=256 \pi$
$\qquad$
$\qquad$ Date: $\qquad$

## Area of Circles Assignment

Complete the table below. Find the area or the radius of the following circles.

|  | Radius | Area |
| :---: | :---: | :---: |
| 5. | 5 | 25п |
| 6. | 3 | $9 \pi$ |
| 7. | 16m | 256\% |
| 8. | 17m | 289 $\mathrm{ccm}^{2}$ |
| 9. | 25 cm | 625п |

Complete the table below. Find the area or the diameter of the following circles.

|  | Diameter | Area |
| :---: | :---: | :---: |
| 10. | 18 | $81 \pi$ |
| 11. | 14.7 | $54 \pi$ |
| 12. | 26m | $169 \pi m^{2}$ |
| 13. | 131.62 cm | $250 \pi \mathrm{~cm}^{2}$ |
| 14. | 30 cm | $225 \pi \mathrm{~cm}^{2}$ |

Solve Problem involving circles.
15. The area of a circle is $121 \pi$. Find its diameter.

Solution:

$$
\begin{aligned}
& A=\frac{\pi d^{2}}{4} \\
& 124 \pi=\frac{\pi d^{2}}{4}
\end{aligned}
$$

124(4) $\pi=\pi d^{2}$
$d^{2}=496$
$d=22.27$
16. The diameter of a circle is 22 cm . Find the area of the circle.
$\qquad$
$\qquad$
$\qquad$

## Area of Circles Assignment

Solution:
$A=\frac{\pi d^{2}}{4}$
$A=\frac{\pi 22^{2}}{4}$
$A=\frac{484 \pi}{4}$
$A=121 \pi$
17. The radius of a circle is 20 m . Find the area of the circle.

Solution:
$A=\pi r^{2}$
$A=\pi 20^{2}$
$A=400 \pi m^{2}$ or $1256.64 \mathrm{~m}^{2}$
18. The length of the longest leg of a clock is 4 inches. Find the area of the clock.

Solution:
$A=\pi r^{2}$
$A=\pi 4^{2}$
$A=16 \pi$ inch $^{2}$ or 50.27 inch $^{2}$
19. The area of one face of a coin is $113.09 \mathrm{~mm}^{2}$. Find the diameter of the coin.

Solution:
$A=\frac{\pi d^{2}}{4}$
$113.09=\frac{\pi d^{2}}{4}$
113.09(4) $=\pi d^{2}$
$\frac{452.36}{\pi}=d^{2}$
$d^{2}=143.99$
$d=11.99$ or 12 mm
20. The diameter of a plate is 8 inches. Find the area of the plate.

Solution:
$A=\frac{\pi d^{2}}{4}$
$A=\frac{\pi 8^{2}}{4}$
$A=\frac{64 \pi}{4}$
$A=16 \pi$ inch $^{2}$ or 50.27 inch $^{2}$

