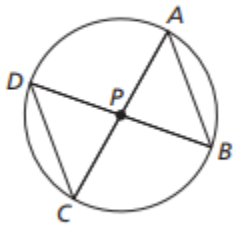
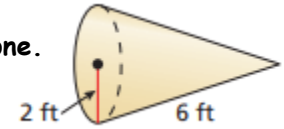
12.1 Name_____

1. **Given** $\overline{AC}$ and $\overline{BD}$ are diameters of $\odot P$.



Prove $\angle ABP \cong \angle DCP$

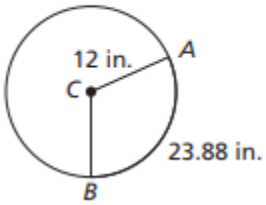
2. Find the surface area of the cone.



3. Find the volume of the cone.

4. Two cylinders are similar. The volume of the smaller cylinder is 112π. The radii of the smaller cylinder is 6 cm and the radii of the larger cylinder is 8 cm. Find the volume of the larger cylinder.

5. Find the measure of arc AB.



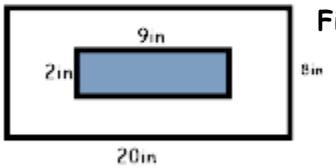
6. Find the equation of a circle. Name the center and the radius. $X^2-14x+y^2+4y-2=0$

List the possible outcomes for each problem.

7. You roll a die and flip one coin.

8. You draw two marbles without replacement from a bag Containing 2 green marbles and 3 black marbles.

9.



Find the probability of throwing a dart and landing in the shaded region.

10. When two six-sided dice are rolled, there are 36 possible outcomes.

a. Find the probability that the sum is 5.

b. Find the probability that the sum is not 5.

c. Find the probability that the sum is less than or equal to 5.

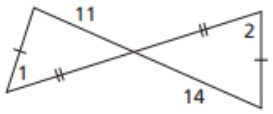
d. Find the probability that the sum is less than 5.

11. A bag contains 5 marbles that are each a different color. A marble is drawn, its color is recorded, and then the marble is put back in the bag. This process is completed 30 times and the results are shown in the table. For which marble is the experimental probability of drawing the marble the same as the theoretical probability?

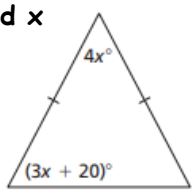
white	black	red	green	blue
5	6	8	2	9

12. Draw a family tree for quadrilaterals.

13. $m\angle 1$ _____ $m\angle 2$



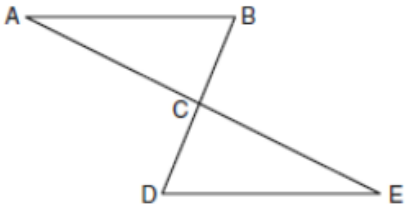
14, Find x



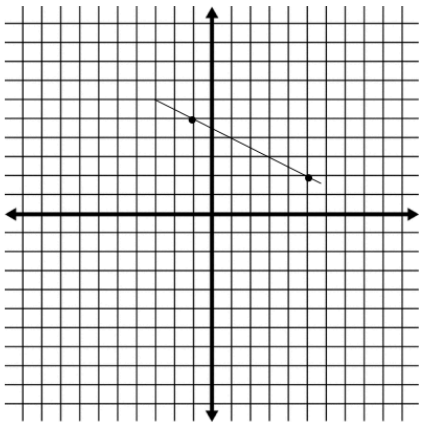
15.

Given: C is the midpoint of BD and AE

Prove: $\triangle ABC \cong \triangle EDC$



16.



Find the equation of the line that is parallel to the given line.