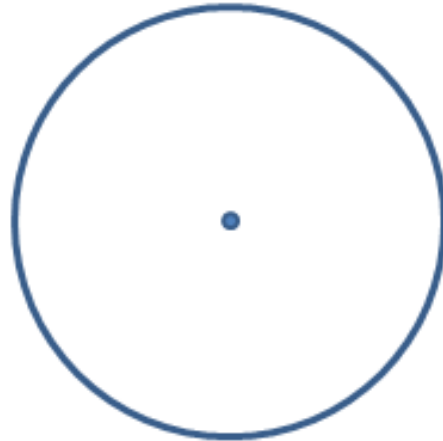


Name: \_\_\_\_\_

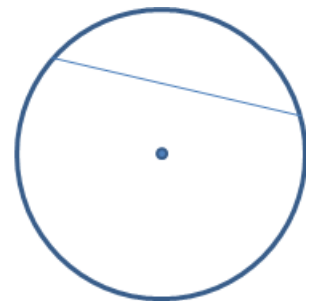
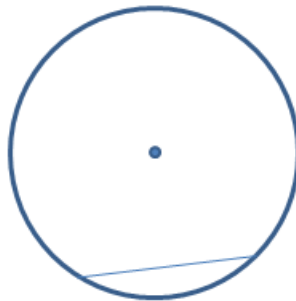
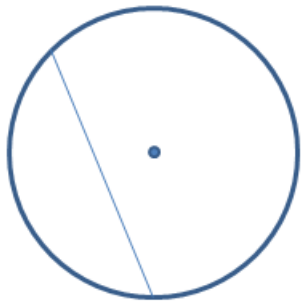
Date: \_\_\_\_\_

**HW Section 8.2 Chord Properties**

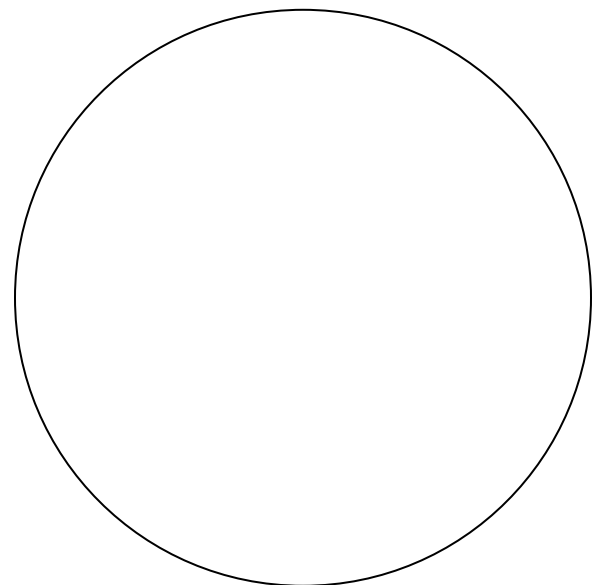
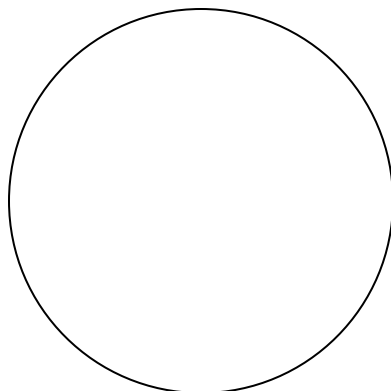
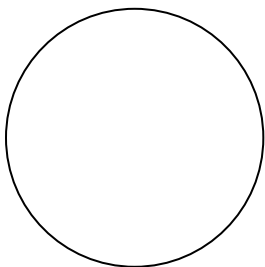
1. For each circle below, draw a chord. Then draw a line that will bisect and is perpendicular to the chord. Will this line cross the centre of the circle?



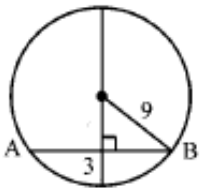
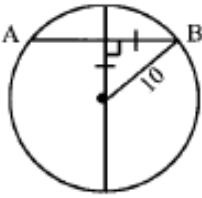
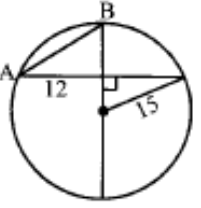
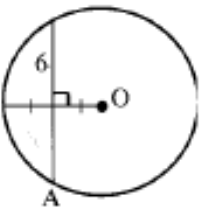
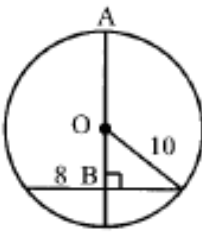
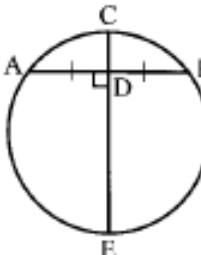
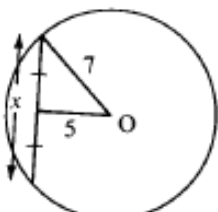
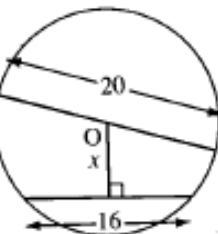
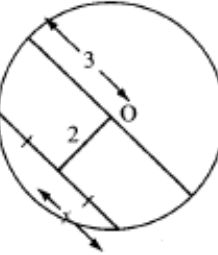
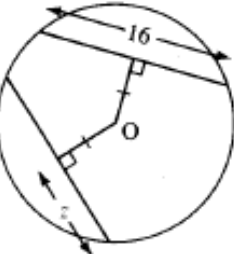
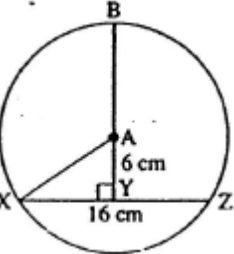
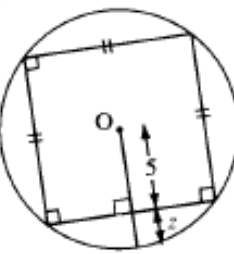
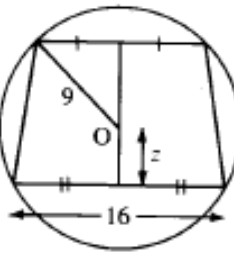
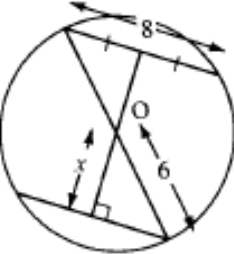
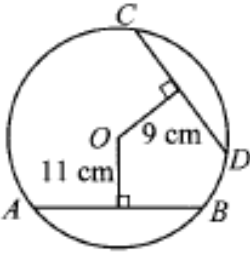
2. Draw a line from the centre to the midpoint of the chord. Then use a protractor to measure the angle between the chord and line.



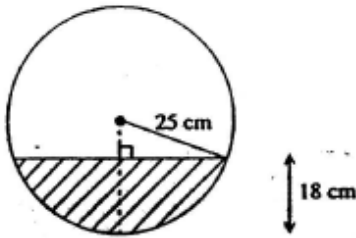
3. Given each circle below, draw two chords and their perpendicular bisectors to find the center of the circles



4. Solve for the missing lengths in each diagram:

|  |   |   |
|--|---|---|
| <p>a) <math>AB =</math></p>   | <p>b) <math>AB =</math></p>    | <p>c) <math>AB =</math></p>                  |
| <p>d) <math>AO =</math></p>   | <p>e) <math>AB =</math></p>    | <p>f) <math>CD = 2, ED = 8, AB =</math></p>  |
| <p>g) <math>x =</math></p>   | <p>h) <math>x =</math></p>    | <p>i) <math>x =</math></p>                  |
| <p>j) <math>z =</math></p>  | <p>k) <math>BY =</math></p>  | <p>l) <math>z =</math></p>                 |
| <p>m) <math>z =</math></p>  | <p>n) <math>x =</math></p>   | <p>o) <math>AB = 6, CD =</math></p>        |

5. The maximum depth of water in a circular pipe of radius 25cm is 18cm. Find the width of the water surface across the pipe.



6. If  $AB = 10\text{cm}$ ,  $CF = 21\text{cm}$ , and  $AE = 8\text{cm}$ . Find the length of  $CD$  and  $AC$ .

