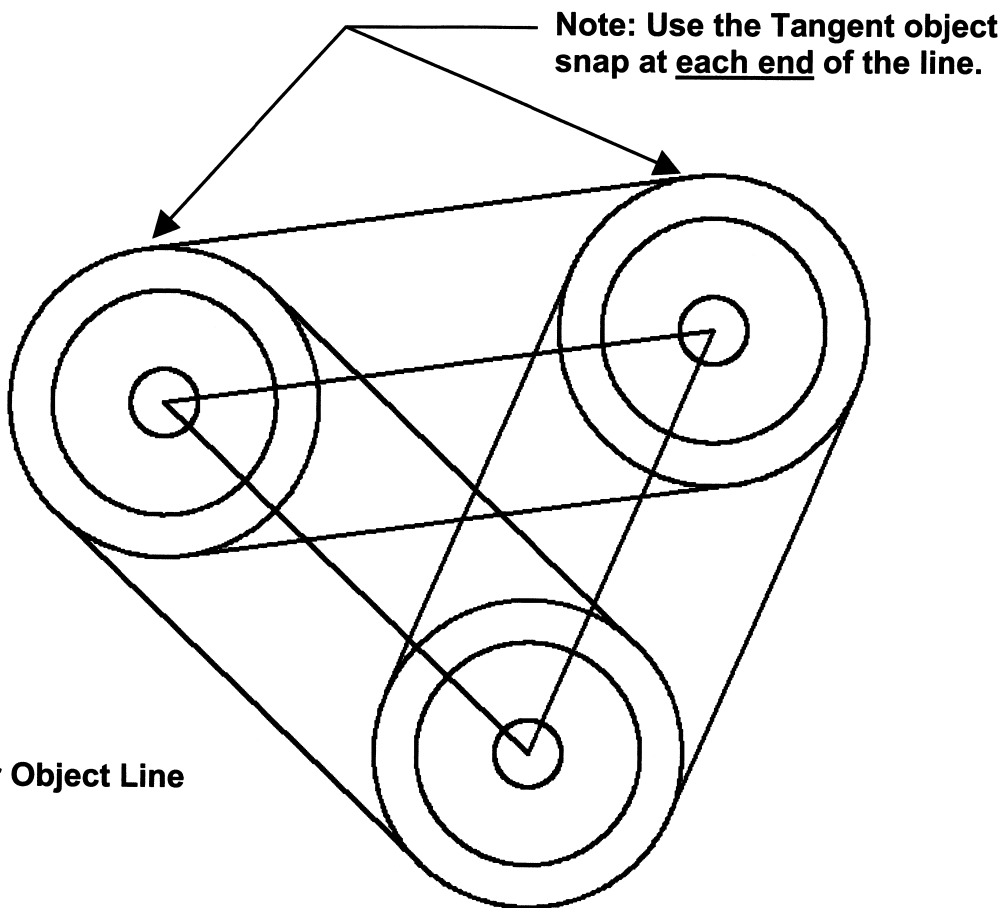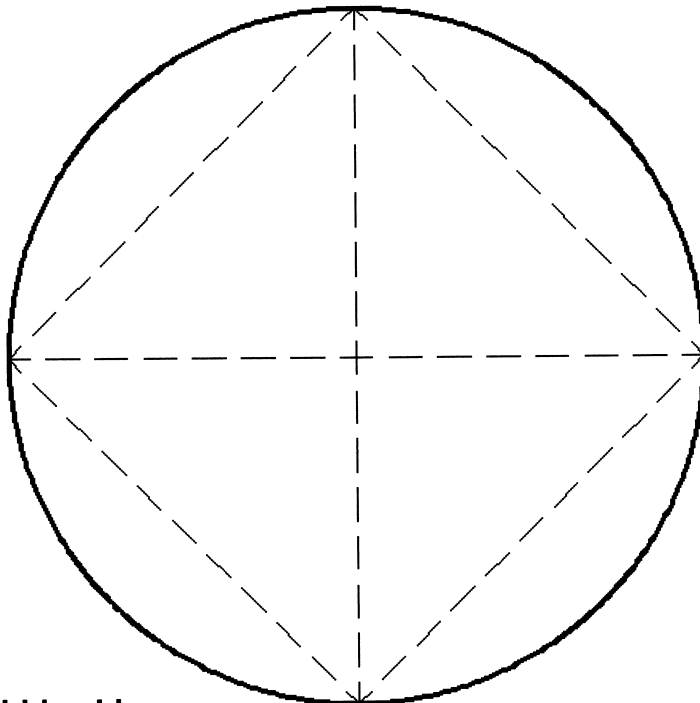# EXERCISE 4A

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Set **Units** and **Precision:**

   Units = Fractional   **Precision =** 1/2"

3. Set **Drawing Limits:**

   Lower Left corner = 0,0   Upper Right Corner = 20, 15

4. Make sure you use **Zoom / All** after setting Drawing Limits

5. Erase the Rectangle that appears with the template, it will appear too small.

6. Turn **OFF** the **Snap** and **Ortho.**

   (Your cursor should move freely)

7. Draw the objects shown below using:

   Circle, center radius and Line (Use Layer = Object Line)

   Object snap = Center and Tangent

8. **Save** the drawing as: **EX4A**

Note: Use the Tangent object snap at <u>each end</u> of the line.

Use Layer Object Line

EXERCISE 4B

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Set **Units** and **Precision:**

      Units = Fractional   **Precision =** 1/4"

3. Set **Drawing Limits:**

      Lower Left corner = 0,0   Upper Right Corner = 12, 9

4. Make sure you use **Zoom / All** after setting Drawing Limits

5. Turn **OFF** the **Snap** and **Ortho.**

   (Your cursor should move freely)

6. Draw the objects shown below using:

      Circle, center radius (Use Layer = Object Line)

      Line (Use Layer = Hidden Line)

      Object snap = Quadrant
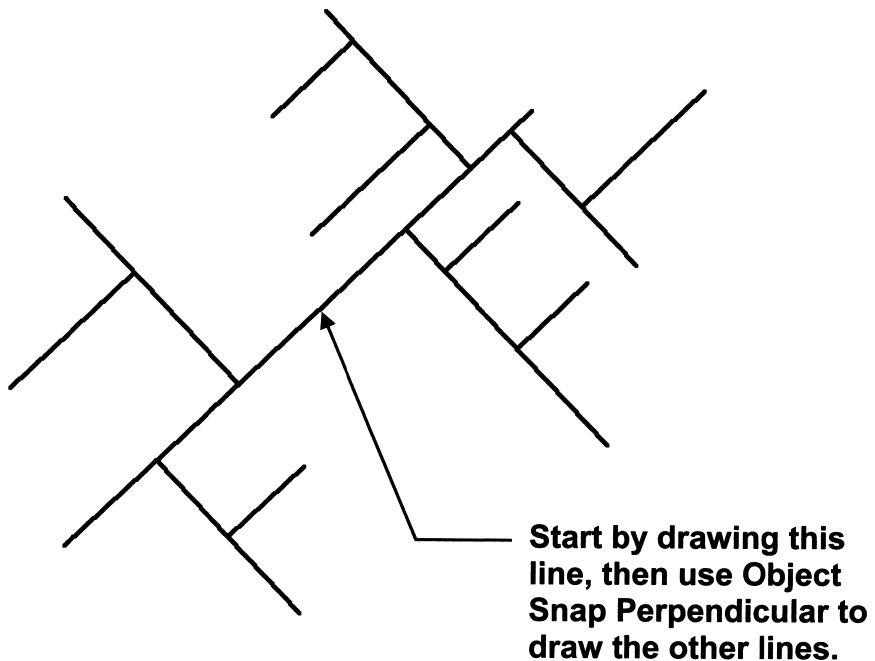
7. **Save** the drawing as: **EX4B**

Use Layers:
Object Line and Hidden Line

EXERCISE 4C

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Set **Units** and **Precision:**

   Units = Architectural   **Precision =** 1/2"

   Note: A warning may appear asking you if you "are you sure you want to change the units?   Select OK button.

3. Set **Drawing Limits:**

   Lower Left corner = 0,0   Upper Right Corner = 25, 20

4. Make sure you use **Zoom / All** after setting Drawing Limits

5. Erase the Rectangle that appears with the template

6. Turn **OFF** the **Snap** and **Ortho.**

   (Your cursor should move freely)

7. Draw the objects shown below using:

   Line (Use Layer = Object Line)

   Object snap = Perpendicular

8. **Save** the drawing as: **EX4C**

Start by drawing this line, then use Object Snap Perpendicular to draw the other lines.

Use Layer = Object Line

EXERCISE 4D

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Set **Units** and **Precision:**

    Units = Decimals   **Precision =** 0.00

Note: A warning may appear asking you if you "are you sure you want to change the units?   Select OK button.

3. Set **Drawing Limits:**

    Lower Left corner = 0,0   Upper Right Corner = 12,9

4. Make sure you use **Zoom / All** after setting Drawing Limits

5. Turn **OFF Snap** and **Ortho.**
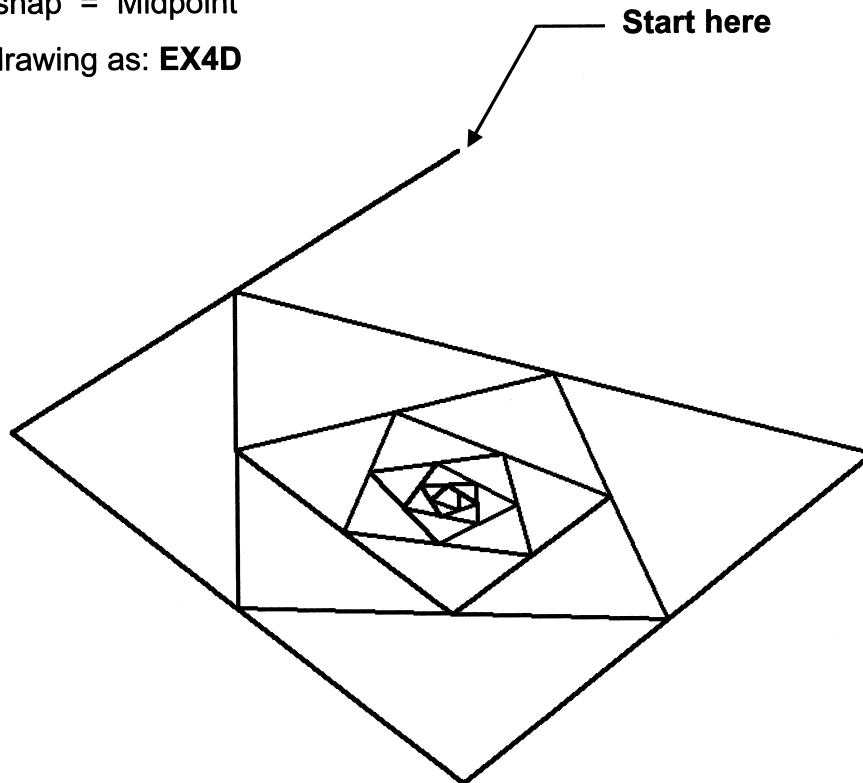
    (Your cursor should move freely)

6. Draw the objects shown below using:

    Line (Use Layer = Object Line)

    Object snap = Midpoint
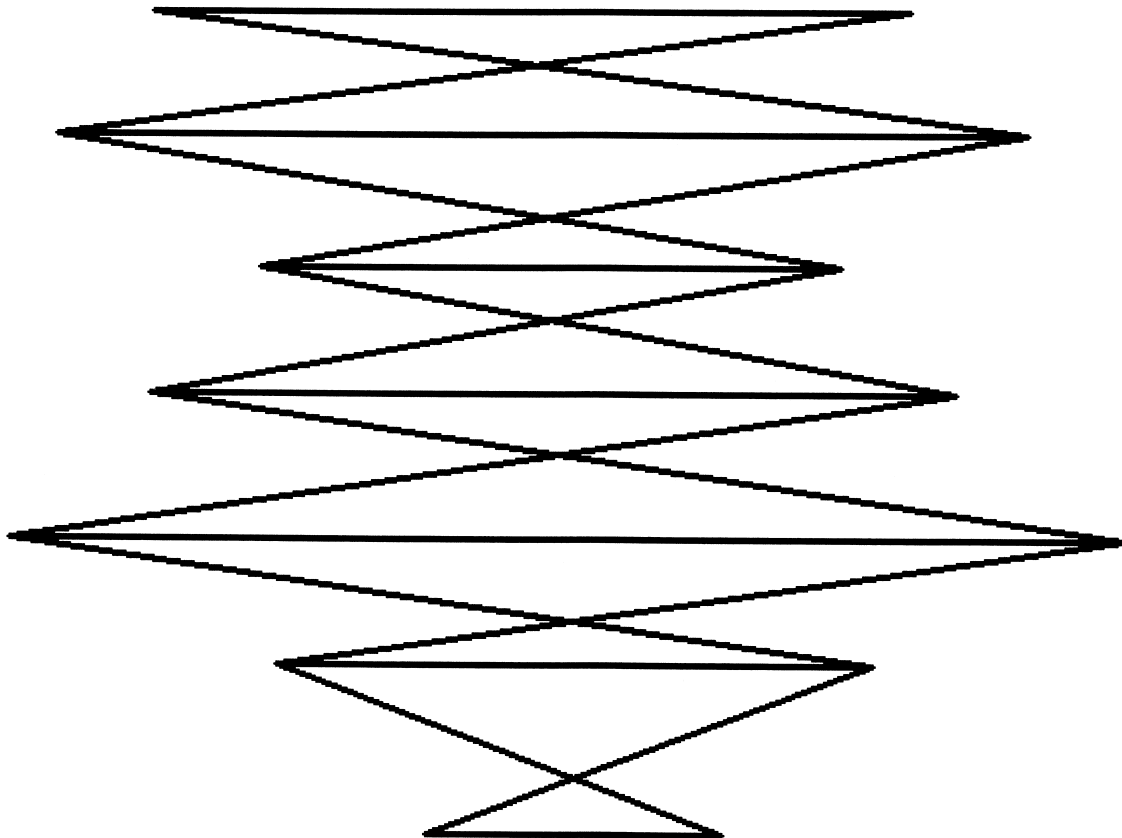
7. **Save** the drawing as: **EX4D**

Start here

Use Layer = Object Line

EXERCISE 4E

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Turn **OFF Snap.**

3. Turn **ON Ortho** for the Horizontal lines only.

4. Draw the Horizontal lines first with Ortho On

5. Turn Ortho Off and draw the angled lines using Object Snap Endpoint.

6. Draw the objects shown below using:

   Line (Use Layer = Object Line)

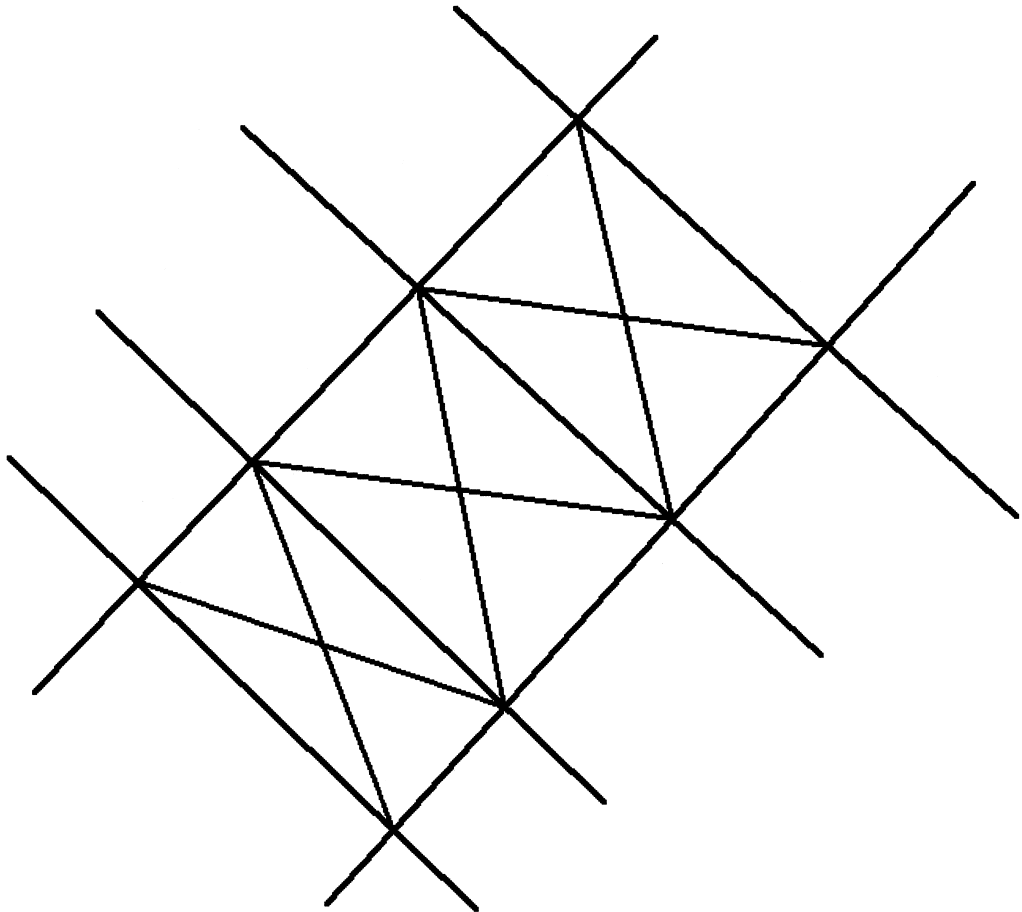   Object snap = Endpoint

7. **Save** the drawing as: **EX4E**

Use Layer = Object Line

EXERCISE 4F

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Turn **OFF Snap** and **Ortho.**

3. Draw the objects shown below using:

    Line (Use Layer = Object Line)

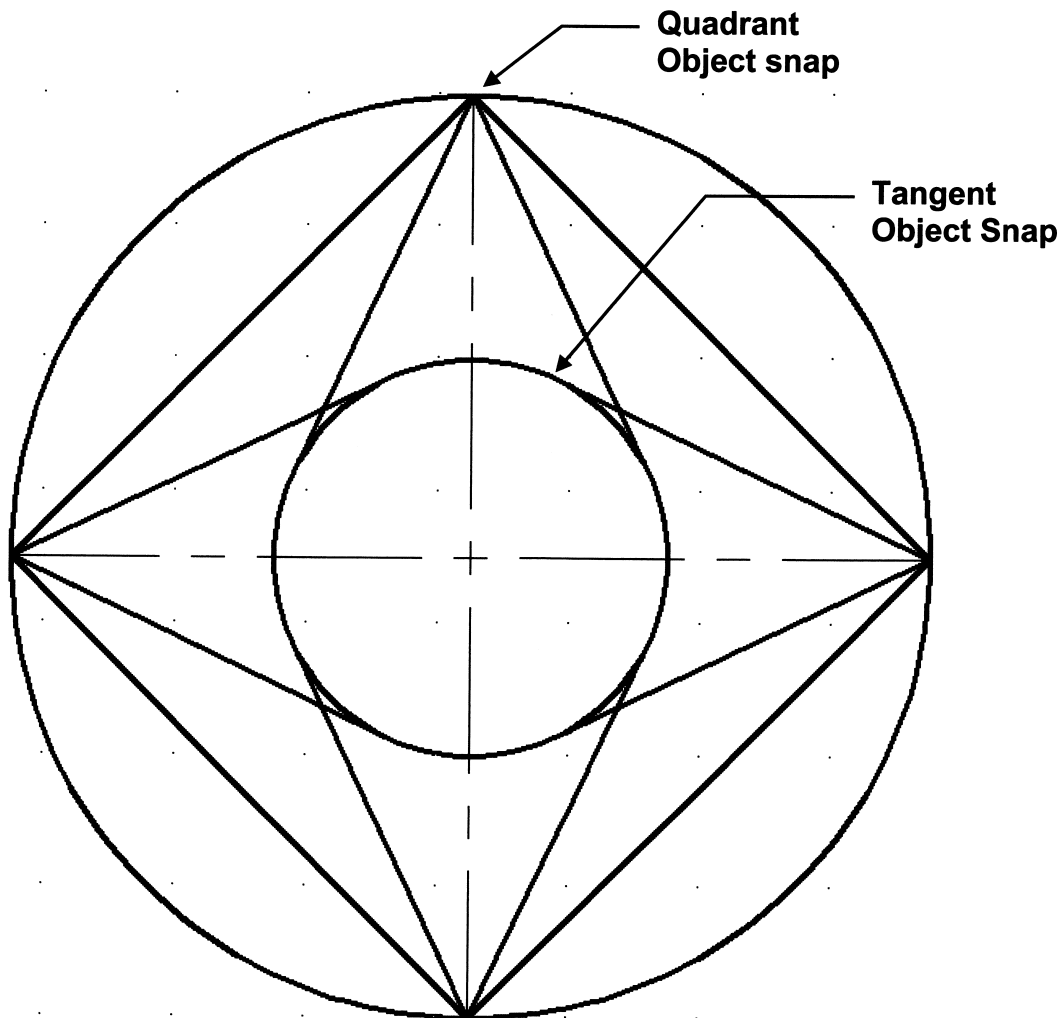   Object snap = Intersection

4. **Save** the drawing as: **EX4F**

Use Layer = Object Line

EXERCISE 4G

INSTRUCTIONS:

1. Start a **NEW** file using **2013-Workbook Helper.dwt.**

2. Turn **OFF Snap** and **Ortho.**

3. Draw the 2 Circles on layer Object with the following Radii : 1.5 and 3.5.

    (Use <u>Object Snap: Center </u>so both circles will have the same center)

4. Draw the Lines using **Layers**: <u>Object Line</u> and <u>Centerline</u>

5. Use **Object Snap** <u>Quadrant</u> and <u>Tangent</u>

6. **Save** the drawing as: **EX4G**

Quadrant
Object snap

Tangent
Object Snap

Use Layers = Object Line and Centerline