SolidWorks Basics

Parts

- Extrude (20 minutes)

Exercise 1:

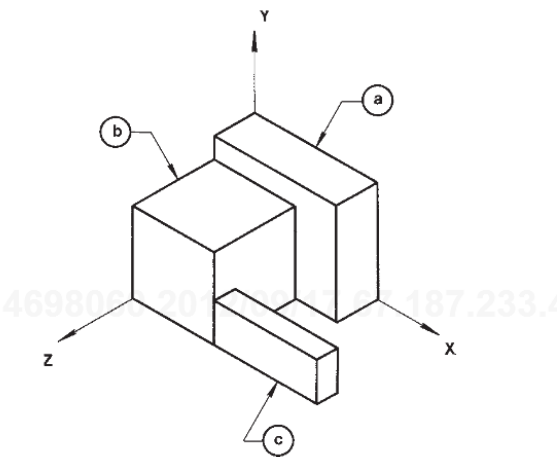Exercise 2:   Exercise 3:

Box a: X = 6, Y = 5, Z = 2
Box b: X = 4, Y = 4, Z = 4
Box c: X = 5, Y = 2, Z = 1

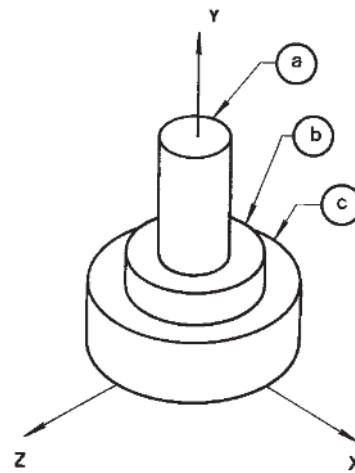**Hint:** Consider a modified version of the NE Isometric viewpoint.

Cylinder a: Ø10 × 30 LONG
Cylinder b: Ø20 × 8 LONG
Cylinder c: Ø35 × 18 LONG

Dimension in inches   Dimension in mm

Exercise 4:

Cylinders are 30 LONG.

Ø15 - 2 PLACES

15

30

30

60

15

5
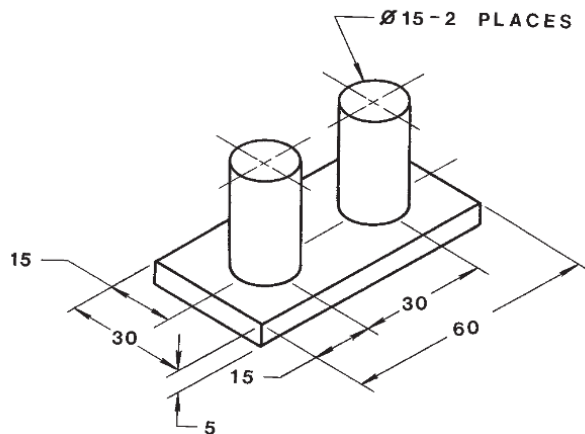
Dimension in mm

- Revolve (20 minutes)

Exercise 5:

Ø 8

25

8

Ø 25

Exercise 6:

Ø 25

25

Ø 16

Ø 32

20

8

25

10

Ø 38
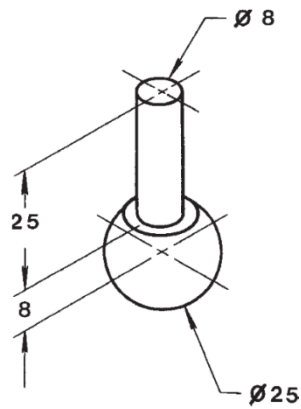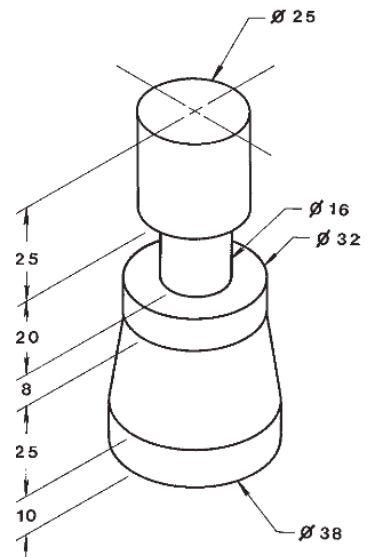
Both dimensions in mm

- Cut (20 minutes)

Exercise 7:

.25   1.75   2.25

.88

1.50

.25

.38

.63   .38
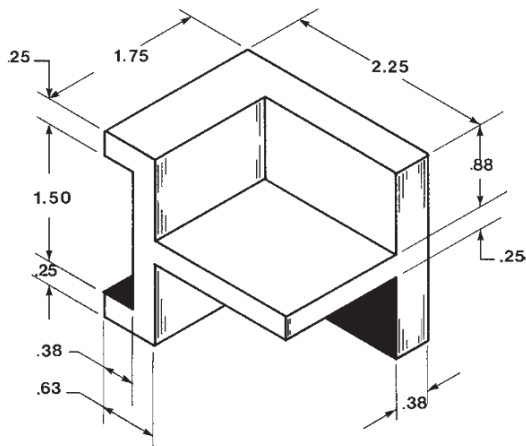
Dimension in inches

Exercise 8:

30

15

Ø 16

Ø 13

R 15

12 - 2 Places

35

43

13
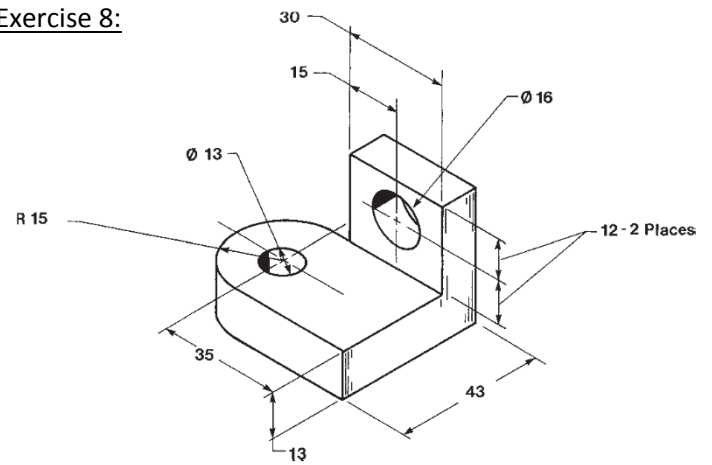
Dimension in mm

- Loft (10 minutes)

Exercise 9:

2.500

2.500

1.250

5.000

3.000

Ø 3.000
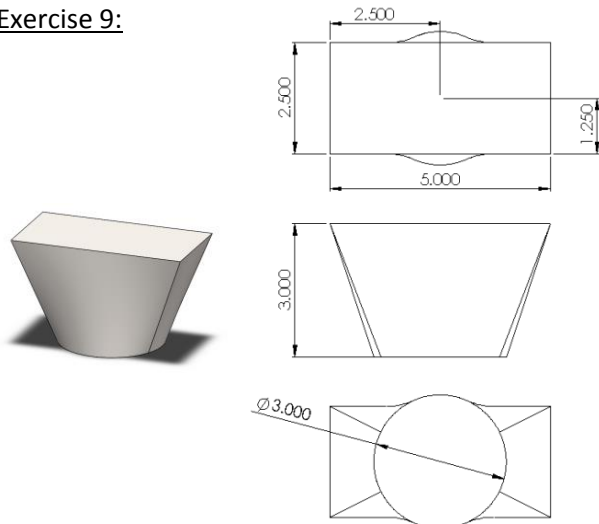
Dimension in inches

- Feature pattern (10 minutes)
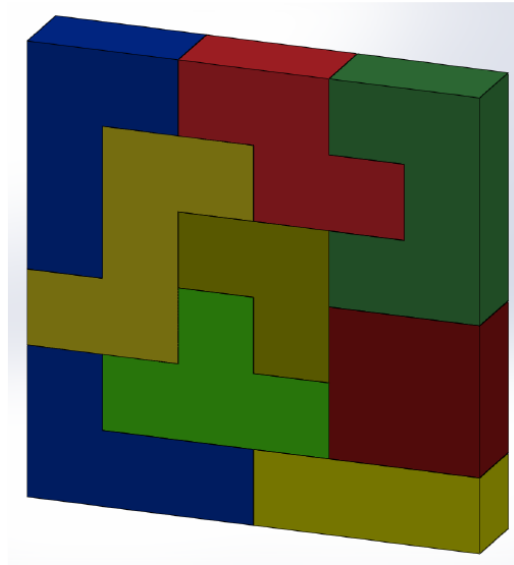
Exercise 10:

10

150

15

120

Ø 15

30

15   30
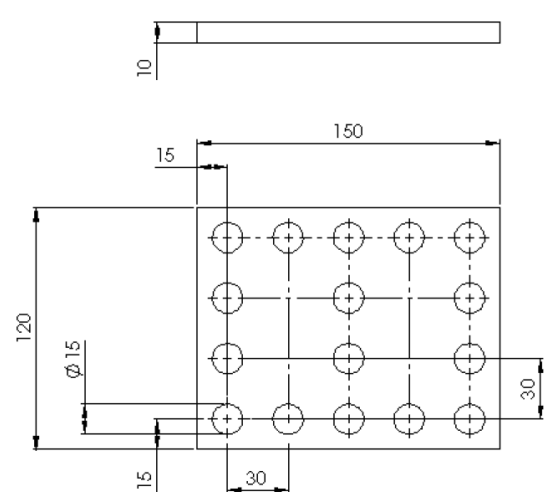
Dimension in mm

Assembly Mates

- Coincident, Parallel, Perpendicular, Distance (30 minutes)

- Concentric, Tangent, Angle (30 minutes)

2.250

2.250

COINCIDENT MATE   COINCIDENT
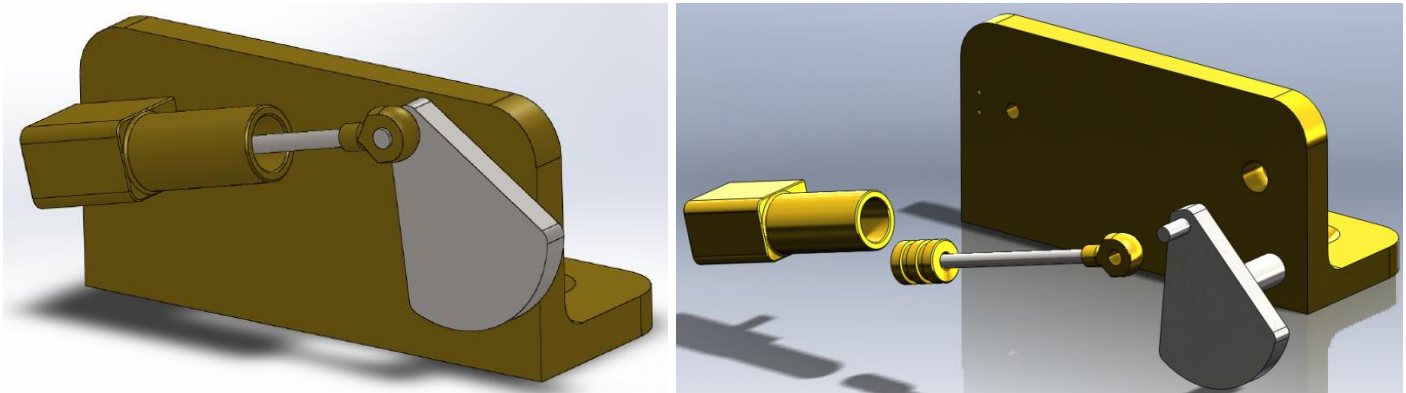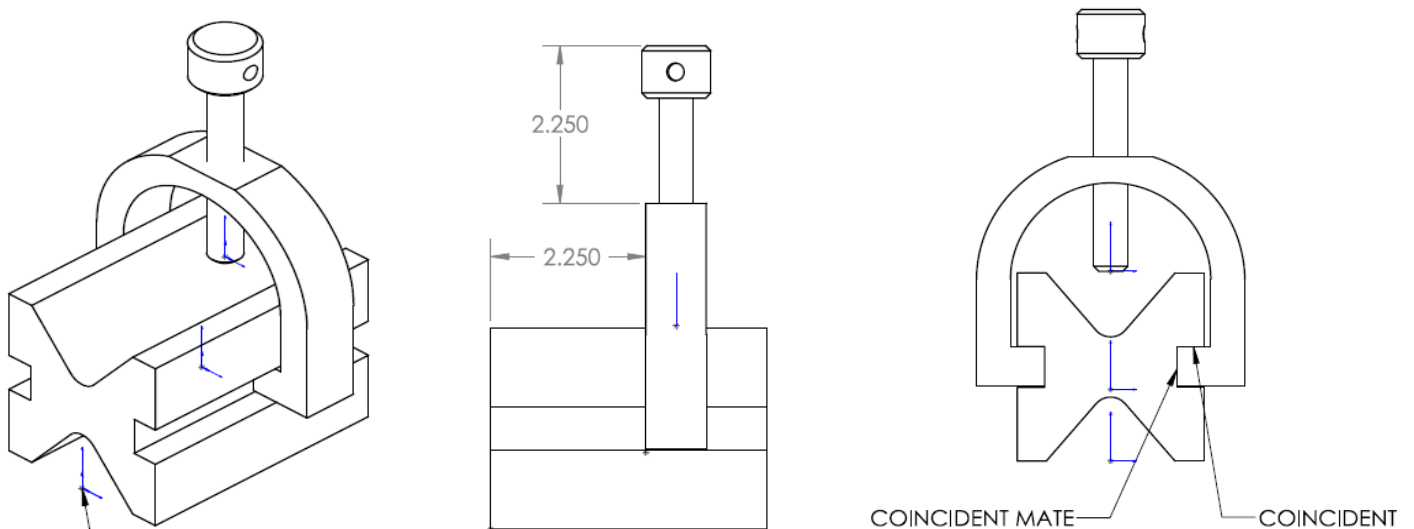
Drawings (40 minutes)

- Parts and dimension

- Assembly and BOM

- Sheet edit

- Detailed view

- Exercise: V block part and assembly drawings