

## Chapter 1 Review: Surface Area

$$SA_{\text{Rectangular Prism}} = \overset{\text{Bottom/Top}}{2lw} + \overset{\text{Sides}}{2lh} + \overset{\text{Ends}}{2wh}$$

$$SA_{\text{Triangular Prism}} = \overset{\text{Bottom}}{lw} + \overset{\text{Sides}}{2ls} + \overset{\text{Ends}}{wh}$$

$$SA_{\text{Square Pyramid}} = \overset{\text{Bottom}}{l^2} + \overset{\text{Sides}}{2ls}$$

$l = \text{length}$

$w = \text{width}$

$$SA_{\text{Cylinder}} = \overset{\text{Ends}}{2\pi r^2} + \overset{\text{Middle}}{\pi dh}$$

$h = \text{height}$

$$SA_{\text{Cone}} = \overset{\text{Bottom}}{\pi r^2} + \overset{\text{Curved}}{\pi rs}$$

$s = \text{slant height}$

$$SA_{\text{Sphere}} = 4\pi r^2$$

$d = \text{diameter}$

$r = \text{radius}$

## Chapter 2 Review: Scale

We will be having the Unit 2 Test TOMORROW.

Today will be strictly spent on working through problems. If you have any issues, call me over!

Page 95 #1, 2

Page 96-97 #1-6

Page 98-99 #1-9

If you can do these questions, you shouldn't have any problems tomorrow.

Remember:

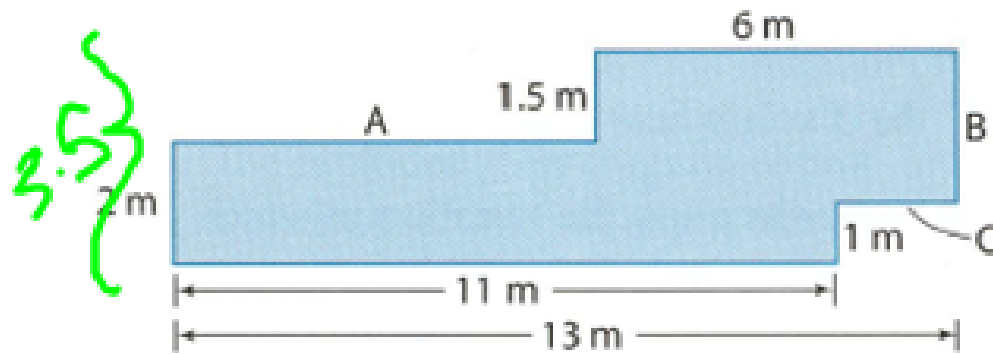
Orthographic Views: the three 2D views of an object (Front, Right Side, Top)

Isometric View: a sketch of an object using dot paper. Object appears to be 3D!!

Exploded View: a view of the object that shows somethings broken into its individual parts

One point perspective drawing: a view of an object with a vanishing point...looks like the object is going off into the distance

1. Determine the missing dimensions.



A

$$13 - 6 = A$$

$$A = 7$$

$$2 + 1.5 = 3.5$$

$$3 + 1 = 3.5$$

$$- 1 \quad - 1$$

$$B = 2.5$$

C  $13 - 11 = C$

$$C = 2$$

2. Danny's toy tractor is a 1:16 scale model of the actual tractor.

a) The wheelbase of the toy tractor is 16 cm. How long is the wheelbase of the real tractor?

b) The front tread range of the real tractor is 60 in. What is the front tread range of the toy tractor?

$$\text{Scale} = \frac{\text{Actual Size}}{\text{Model Size}}$$

Ratio: M:A

$$1:16 = 16:x$$

$$\frac{16}{1} = \frac{x}{16}$$

$$x = 16 \times 16$$

$$x = 256$$

∴ The wheelbase 256 in.

$$b) 1:16 = x:60$$

$$\frac{16}{1} = \frac{60}{x}$$

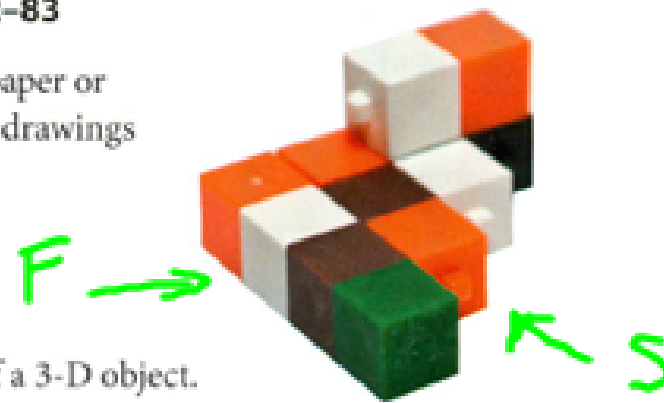
$$16x = 60$$

$$x = \frac{60}{16}$$

$$x = 3.75$$

**2.2** Representing Views of 3-D Objects, pages 72–83

3. The object shown is made from linking cubes. On paper or using technology, create a set of three orthographic drawings of the object.

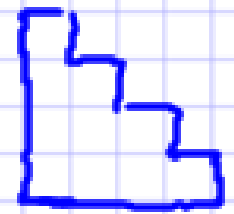
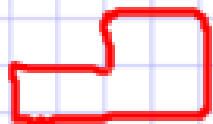
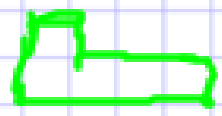


4. The picture shows a set of orthographic drawings of a 3-D object.

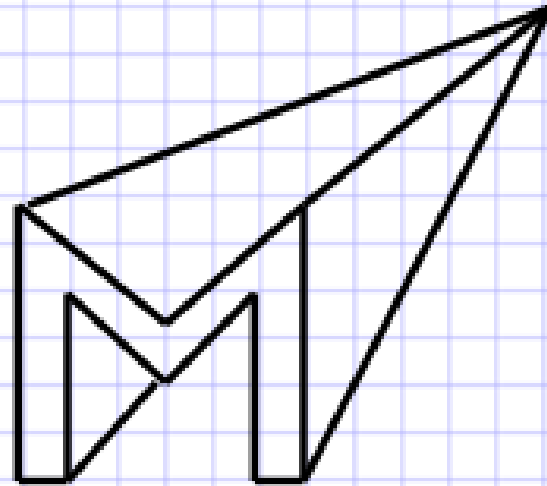
Front

Side

Top



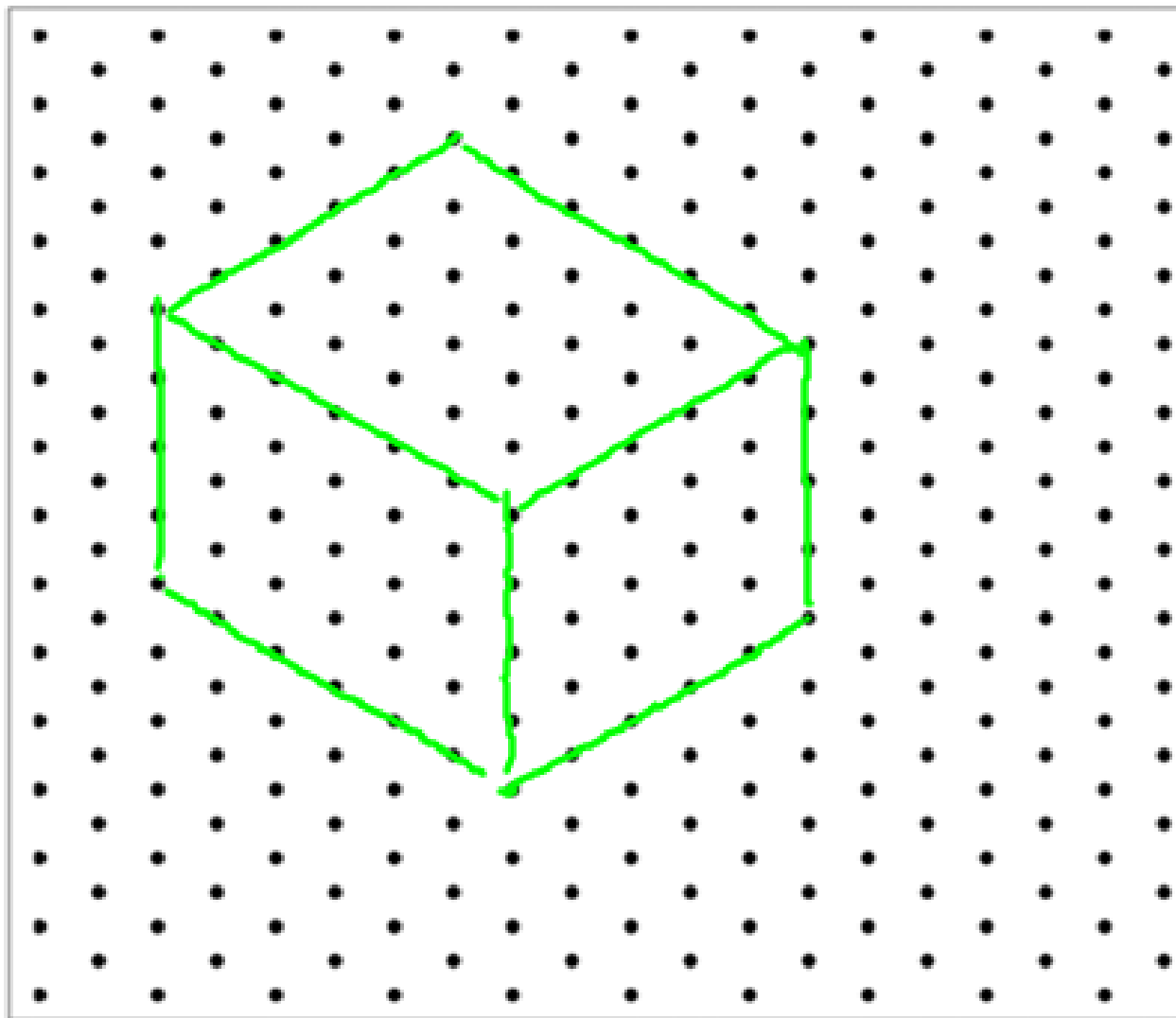
5. On paper or using technology, draw your initials in large block letters. Create a one-point perspective drawing of your initials.



A rectangular box has a width of 2.5 cm, a depth of 3 cm, and a height of 2 cm. Draw an isometric drawing of the box.

dist. btw dots = 0.5cm

$w = 2.5$   
 $d = 3$   
 $h = 2$





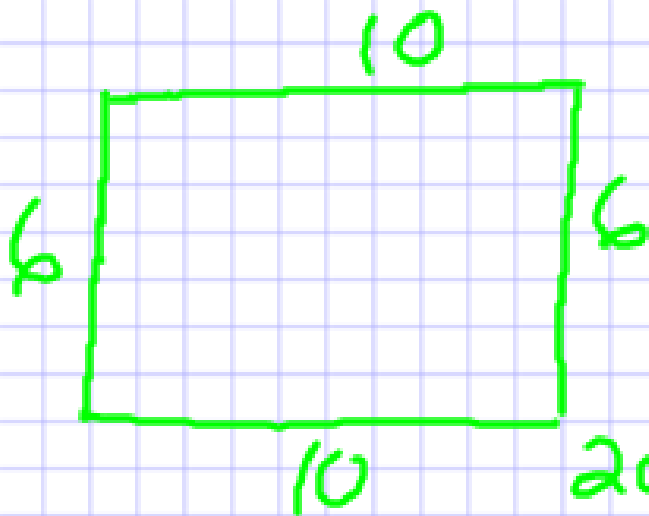
$$120'' \rightarrow ft$$

$$120'' \times \frac{1ft}{12''}$$

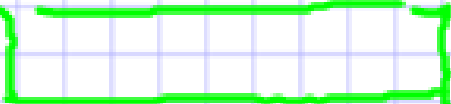
$$= 10ft$$

$$72'' \times \frac{1ft}{12''}$$

$$= 6ft$$



$$20 + 20 + 12 + 12 = 64ft^2$$


$$2 \times 10 = 20$$


$$2 \times 6 = 12$$

6. The picture shows a set of Allen keys. The keys fit into the green arms, which fit into the centre piece. On paper or using technology, draw an exploded view diagram of the Allen key.

