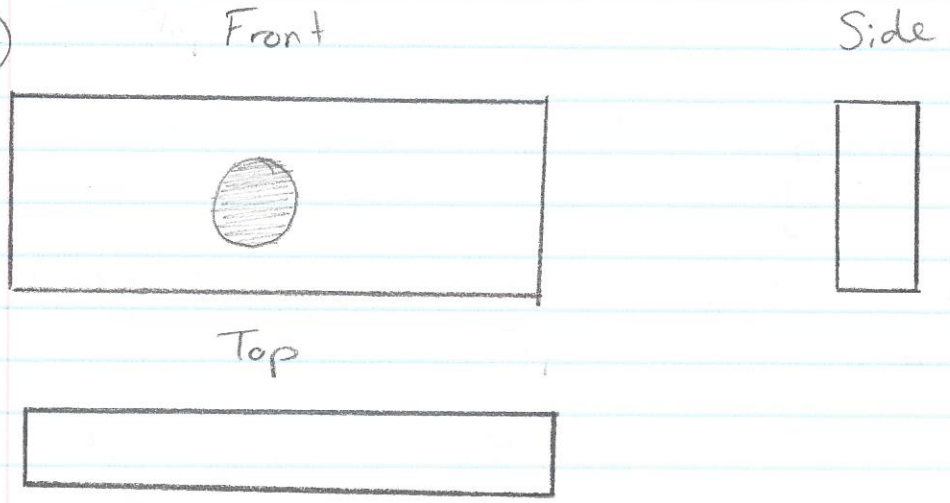
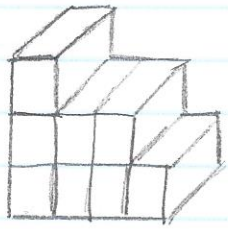
Math 8: Surface Area Final Exam Review - Key

- Views of 3D objects.

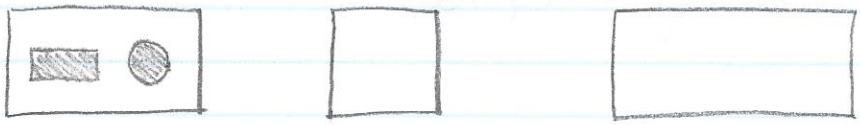
a)



b)

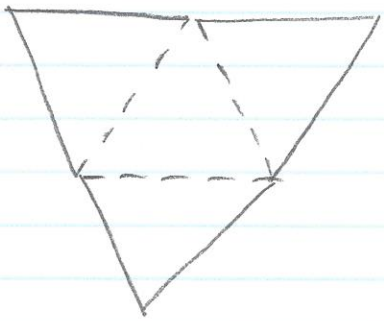


c)

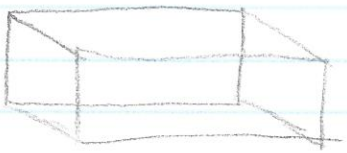


- Nets of 3D objects

d)



e) Rectangular Prism.



• Surface Area of a Prism

a) $SA = 2A_{TOP} + 2A_{FRONT} + 2A_{side}$
$= 2lw + 2lw + 2lw$
$= 2(26.8)(8) + 2(26.8)(38.4) + 2(38.4)(8)$
$= 3101.4\ cm^2$

$SA = A_{TOP} + 2A_{FRONT} + A_{BOTTOM} + A_{side}$
$= lw + 2\left(\frac{bh}{2}\right) + lw + lw$

$= (7.6)(3.6) + (6.8)(5) + (6.8)(3.6) + (5)(3.6)$
$= 608.6\ m^2$

b) $SA_{1cm} = 5s^2$ $SA_{2cm} = 5s^2$ $SA_{3cm} = 5s^2$
$= 5(1)^2$ $= 5(2)^2$ $= 5(3)^2$
$= 5\ cm^2$ $= 20cm^2$ $= 45cm^2$

Paper $= 70cm^2$

• Surface Area of a Cylinder

a) $SA = A_C + A_R$
$= 2\pi r^2 + \pi r^2 h$
$= 2(3.14)(5)^2 + (3.14)(5)^2(72)$
$= 5809.0\ cm^2$

b) $SA = \pi r^2 + \pi r^2 h$
$= (3.14)(21)^2 + (3.14)(21)^2(32)$
$= 45\ 696.42\ cm^2$