تم تحميل هذا الملف من موقع المناهج الإماراتية	
	

الملف حل مراجعة نهائية ريفيل الجزء الأول
موقع المناهج ⇦ المناهج الإماراتية ⇦ الصف السابع ⇦ رياضيات ⇦ الفصل الثالث

روابط مواقع التواصل الاجتماعي بحسب الصف السابع			
			
روابط مواد الصف السابع على تلغرام			
التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

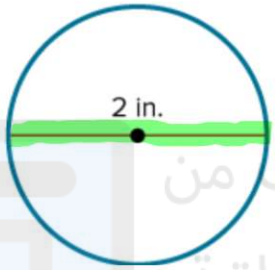
المزيد من الملفات بحسب الصف السابع والمادة رياضيات في الفصل الثالث	
1	حل مراجعة نهائية وفق الهيكل الوزاري
2	ملخص لقواعد مساحات وحجوم بعض الأشكال
3	حل نموذج تدريبي للاختبار النهائي
4	نموذج تدريبي للاختبار النهائي
5	حل تجميعة أسئلة وفق الهيكل الوزاري ريفيل

Part (1): 10 MCQ 3marks per question

Outcome: Find the circumferences of circles given the radius or diameter

Textbook #455 questions 1-6

1) **Find the circumference** of the watch face. Use 3.14 for π. Round to the nearest hundredth if necessary.



$d = 2$ in

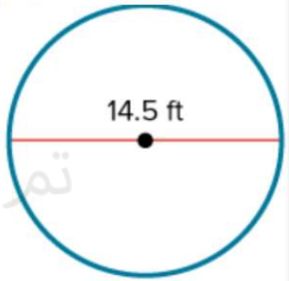
$C = 2\pi r$ ←

$= \pi d$ ←

$C = 3.14(2)$

$= 6.28$ in

2) A circular fence is being used to surround a doghouse. **How much fencing is needed** to build the fence? Use 3.14 for π.



$d = 14.5$ ft

$C = \pi d$

$= 3.14(14.5)$

$= 45.530$

$= 45.53$ ft

$$\begin{array}{r} 145 \quad 1 \\ 314 \quad 2 \\ \hline 580 \\ 1450 \\ 43500 \\ \hline 45530 \end{array}$$

3) **Find the circumference** of a circle with a radius $31\frac{1}{2}$ yards. Use 3.14 for π. Round to the nearest hundredth if necessary.

$r = 31\frac{1}{2} = \frac{63}{2}$ or 31.5

$C = 2\pi r$

$= 2(3.14) \cdot \frac{63}{2}$

$= 3.14(63)$

$= 197.82$ yd

Part (1): 10 MCQ 3marks per question

Outcome: Find the circumferences of circles given the radius or diameter

Textbook #455 questions 1-6

4) **Find the circumference** of a circle with a radius of 4.4 inches. Use 3.14 for π.Round to the nearest hundredth .

$r = 4.4$ $\quad \pi = 3.14$

$C = 2\pi r$

$= 2(3.14)(4.4)$

$= 2(13.816)$

$= 27.632$

$= 27.63$ in

$$\begin{array}{r} 314 \\ \times\ 44 \\ \hline 1256 \\ 12560 \\ \hline 13816 \end{array}$$

5) The world's largest flower, the Rafflesia, has a circumference of 286 centimeters. **Find the approximate diameter of the flower**.Use 3.14 for π.

$C = \pi d$

$286 = 3.14\, d \quad \div 3.14$

$d = \frac{286}{3.14}$

$d = 91.0828$

$d \simeq 91$ cm

6) A helicopter pad has acircumference of $47\frac{1}{2}$ yards. **Find the approximate diameter of the** helicopter pad. Use 3.14 for π. Round to the nearest hundredth if necessary.

$C = 47\frac{1}{2} = 47.5$ or $\frac{95}{2}$

$C = \pi d$

$47.5 = 3.14\, d$

$d = \frac{47.5}{3.14}$

$d = 15.12738\ldots$

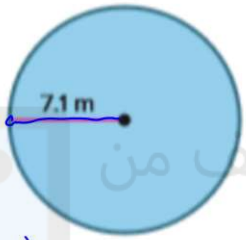
$d \simeq 15.13$ yd

Part (2): 10 MCQ (5 marks per question)

$A = \pi r^2$

Outcome: Find the area of circles given the radius or diameter using the formulas **Textbook #465 questions 1-8**

1) **Find the area** of the circle. Use 3.14 for π. Round to the nearest hundredth.



$r = 7.1$

$A = \pi r^2$

$= 3.14 (7.1)^2$

$= 3.14 (50.41)$

$= 158.2874$

$\simeq 158.29 \ m^2$

$$\begin{array}{r} 71 \\ \times\ 71 \\ \hline 71 \\ 497\,0 \\ \hline 50.41 \end{array}$$

2) **Find the area** of the circle. Use 3.14 for π. Round to the nearest hundredth.

$r = 4.25$

$A = \pi r^2$

$= 3.14 (4.25)^2$

$= 3.14 (4.25)(4.25)$

$= 3.14 (18.0625)$

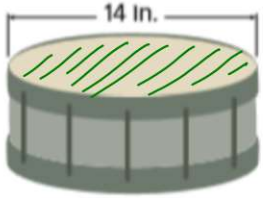
$= 56.71625$

$\simeq 56.72 \ in^2$

A) 56.72 in

B) 56.72 in^2 (Area)

3) **What is the area** of the drumhead on the drum? Use 3.14 for π. Round to the nearest hundredth.



$d = 14$ in

$r = \frac{d}{2} = \frac{14}{2}$

$r = 7$ in

$A = \pi r^2$

$= 3.14 (7)^2$

$= 3.14 (49)$

$= 153.86 \ in^2$

Part (2): 10 MCQ (5 marks per question)

Outcome: Find the area of circles given the radius or diameter using the formulas **Textbook #465 questions 1-8**

4) **What is the area** of one side of the penny . Use 3.14 for π. Round to the nearest hundredth.

$d = 19$ mm

$r = \frac{19}{2}$ mm

$= 9.5$ mm

$A = \pi r^2$

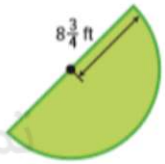
$= 3.14 (9.5)^2$

$= 3.14 (90.25)$

$= 283.385$

$\simeq 283.39$ mm^2

5) Mr. Ling is adding a pond in the shape of a semicircle in his backyard. **What is the area** of the pond? Use 3.14 for π.Round to the nearest hundredth.



$r = 8\frac{3}{4}$ ft

$= 8.75$ ft

or $= \frac{35}{4}$

Area of semicircle

$= \frac{\pi r^2}{2} = \frac{1}{2}\pi r^2$

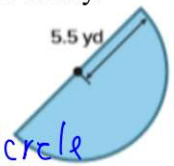
$= \frac{3.14 (8.75)^2}{2}$

$= 1.57 (8.75)^2$

$= 120.203125$

$\simeq 120.20$ ft^2

6) Vidur needs to buy mulch for his garden. **What is the area** of his garden? Use 3.14 for π. Round to the nearest hundredth if necessary.



$r = 5.5$ yd

Area of semicircle

$= \frac{\pi r^2}{2}$

$= \frac{3.14 (5.5)^2}{2}$

$= 1.57 (30.25)$

$= 47.4925$

$\simeq 47.49$ yd^2

Part (2): 10 MCQ (5 marks per question)

Outcome: Find the area of circles given its circumference. **Textbook #465 questions 1-8**

7) The exact circumference of a circle is 18π inches. **What is the approximate area of the circle?** Use 3.14 for π.Round to the nearest hundredth.

$C = 2\pi r \Rightarrow \frac{18\pi}{2} = \frac{2\pi r}{2}$

$r = 9$ in

$A = \pi r^2$

$= 3.14(9)^2$

$= 3.14(81)$

$= 254.34$ in^2

8) The exact circumference of a circle is 34π meters. **What is the approximate area of the circle?** Use 3.14 for π. Round to the nearest hundredth.

$C = 2\pi r \Rightarrow \frac{34\pi}{2} = \frac{2\pi r}{2}$

$r = 17$ m

$\text{Area} = \pi r^2$

$= 3.14(17)^2$

$= 907.46$ m^2

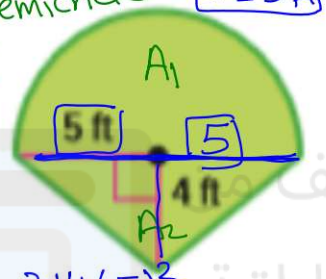
Part (3): 3 FRQ (6 to 8 marks per question) Show your steps

Outcome: find areas of composite figures by decomposing the figures .

Textbook #473 questions 4-8

4) Find the area of the figure. If necessary, use 3.14 for π and round to the nearest hundredths.

A_1 = Area of Semicircle
A_2 = Area of triangle



$A_1 = \frac{\pi r^2}{2} = \frac{3.14(5)^2}{2}$

$A_1 = 1.57(25) = 39.25\ ft^2$

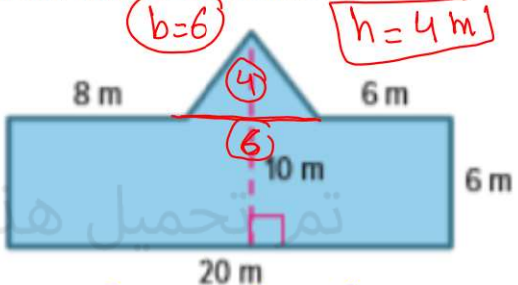
$A_2 = \frac{bh}{2} = \frac{10(4)}{2}$

$= 20\ ft^2$

Total area $= A_1 + A_2$

$= 39.25 + 20 = 59.25\ ft^2$

5) Find the area of the figure. If necessary, use 3.14 for π and round to the nearest hundredths.



Area of triangle $= A_1$

$A_1 = \frac{bh}{2} = \frac{6(4)}{2} = 12\ m^2$

Area of rectangle $= A_2$

$A_2 = lw$

$= 20(6) = 120\ m^2$

total Area $= A_1 + A_2$

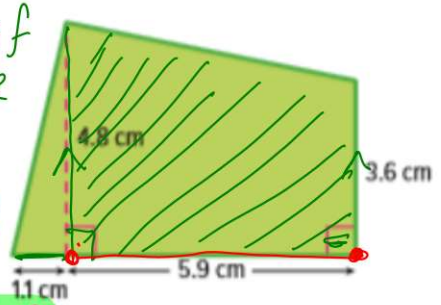
$= 12 + 120 = 132\ m^2$

6) Find the area of the figure. If necessary, use 3.14 for π and round to the nearest hundredths.

A_1 = Area of triangle

$A = \frac{bh}{2}$

$= \frac{(1.1)(4.8)}{2}$



$= 2.64\ cm^2$

A_2 = Area of trapezoid

$= \left(\frac{b_1 + b_2}{2}\right)h$

$= \left(\frac{4.8 + 3.6}{2}\right)(5.9)$

$= \frac{8.4}{2}(5.9) = 4.2(5.9)$

$= 24.78\ cm^2$

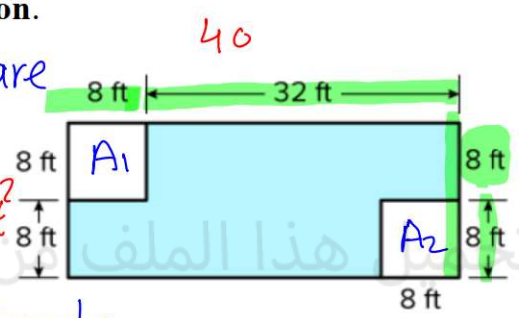
total area $= 2.64 + 24.78 = 27.42\ cm^2$

Part (3): 3 FRQ (6 to 8 marks per question) Show your steps

Outcome: find areas of composite figures by decomposing the figures .

Textbook #473 questions 4-8

7) **Find the area of the shaded region.**



$A_1 = A_2 =$ area of square

$= (8)^2 = 64$

$A_1 = 64\ ft^2$, $A_2 = 64\ ft^2$

A_3 = Area of rectangle

$= l \cdot w = 40(16) = 640\ ft^2$

Area of shaded region

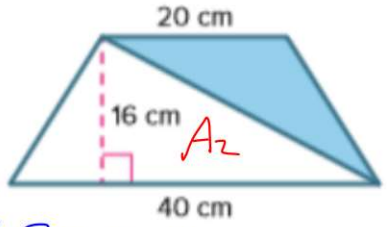
$= A_3 - (A_1 + A_2)$

$= 640 - (64+64)$

$= 640 - 128$

$= 512\ ft^2$

8) **Find the area of the shaded region.**



★ Area of trapezoid

$A_1 = \frac{20+40}{2} \cdot 16$

$= \frac{60}{2} \cdot 16$

$= 30(16) = 480\ cm^2$

A_2 = Area of triangle

$= \frac{40(16)}{2} = 320\ cm^2$

Area of shaded region

$= A_1 - A_2$

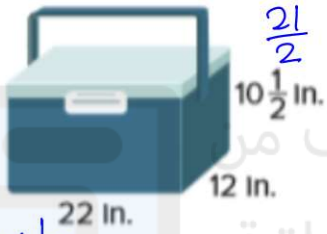
$= 480 - 320 = 160\ cm^2$

Part (1): 10 MCQ 3 marks per question

Outcome: find volumes of prisms and pyramids by using formulas

Textbook #485 questions 1-6

1) A cooler is in the shape of a rectangular prism. **What is the volume** of the cooler? Round to the nearest tenth if necessary.



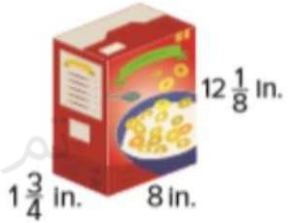
$V = \ell w h$

$= \frac{22}{1}(12)(\frac{21}{2})$

$= 11(12)(21)$

$= 2772 \text{ in}^3$

2) A cereal box is in the shape of a rectangular prism. **What is the volume** of the cereal box? Round to the nearest tenth .



$V = \ell w h$

$= \frac{7}{4} \cdot 8 \cdot \frac{97}{8}$

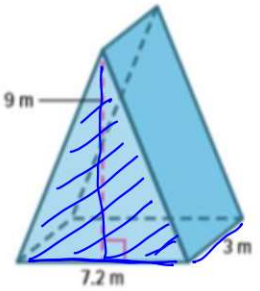
$= \frac{7(97)}{4}$

$= 169.8 \text{ in}^3$

$97 \times 7 = 679$

$679 \div 4 = 169.75$

3) **Find the volume** of the figure. Round to the nearest tenth if necessary.



$V = \text{Base area} \times \text{height}$

$= \frac{(7.2)(9)}{2} \cdot 3$

$= 3.6(27)$

$= 97.2 \text{ m}^3$

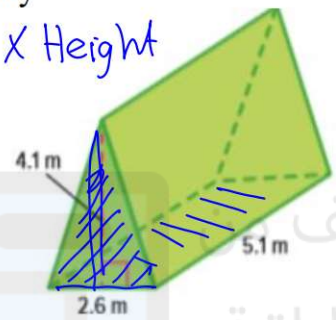
$36 \times 27 = 252 + 720 = 972$

Part (1): 10 MCQ 3 marks per question

Outcome: find volumes of prisms and pyramids by using formulas

Textbook #485 questions 1-6

4) **Find the volume** of the figure. Round to the nearest tenth if necessary.



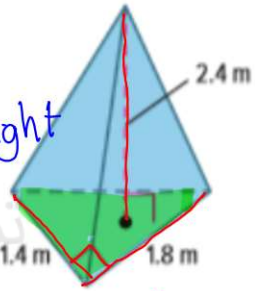
$V =$ base area $\times$ Height

$V = \frac{(2.6)(4.1)}{2} \cdot (5.1)$

$= 1.3(4.1)(5.1)$

$= 27.2\ m^3$

5) **Find the volume** of the figure. Round to the nearest tenth if necessary.



Volume

$= \frac{1}{3}$ base area $\times$ Height

base area $= \frac{bh}{2}$

$= \frac{1.4(1.8)}{2} = 0.7(1.8)$

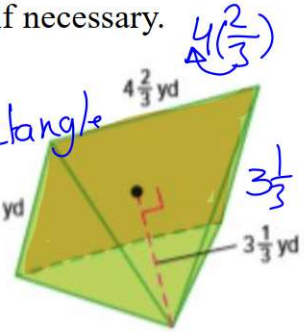
$= 1.26\ m^2$

Volume $= \frac{1}{3}(1.26)(2.4)$ (0.8)

$= 1.008$

$= 1.0\ m^3$

6) **Find the volume** of the figure. Round to the nearest tenth if necessary.



base area

= Area of rectangle

$= 3(\frac{14}{3})$ $4(\frac{2}{3})$

$= 14\ yd^2$

Volume $= \frac{1}{3}$ base area $\times$ Height

$= \frac{1}{3}(14)(\frac{10}{3})$

$= \frac{140}{9}$

$= 15.56\ yd^3$

$\simeq 15.6\ yd^3$

Part (2): 10 MCQ (5 marks per question)

Outcome: find volumes of prisms and pyramids by using formulas

Textbook #485 questions 7-10

7) A triangular prism has a height of 5.9 meters and volume of 86.376 cubic meters. **What is the area of the base** of the prism?

Volume = Base area x Height

$86.376 = B \cdot 5.9 \div 5.9$

$\text{Base area} = \frac{\text{Volume}}{\text{Height}}$

$B = \frac{86.376}{5.9}$

$= 14.64\ m^2$

8) A rectangular pyramid has a height of 9.5 centimeters and a volume of 494 cubic centimeters. **What is the area of the base** of the pyramid?

$\text{Volume} = \frac{\text{Base area x Height}}{3}$

$\text{Base area} = \frac{3 \cdot \text{Volume}}{\text{Height}}$

$= \frac{(3)(494)}{9.5}$

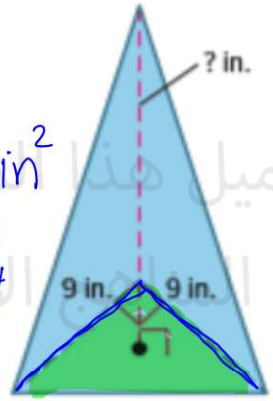
$= 156\ cm^2$

Part (2): 10 MCQ (5 marks per question)

Outcome: find volumes of prisms and pyramids by using formulas

Textbook #485 questions 7-10

9) Aglass stand to display a doll is in the shape of a right triangular pyramid as shown. The volume of the stand is 202.5 cubic inches. **What is the height of the stand**?



$$\text{Base area} = \frac{bh}{2} = \frac{9(9)}{2}$$

$$= \frac{81}{2} = 40.5 \text{ in}^2$$

$$\text{Volume} = \frac{1}{3} \text{ Base area} \times \text{Height}$$

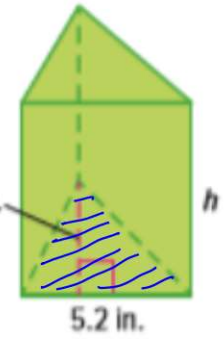
$$202.5 = \frac{1}{3_1} \cdot \frac{81^{27}}{2} \cdot h \quad \times 2$$

$$2(202.5) = 27h \quad \div 27$$

$$h = \frac{405}{27} = 15 \text{ in}$$

$$\text{Height} = \frac{3 \times \text{Volume}}{\text{Base area}}$$

10) A triangular box of sticky notes is shown. The volume of the box of sticky notes is 54.6 cubic inches. **What is the height of the box of sticky notes?**



$$\text{Base area} = \frac{bh}{2}$$

$$= \frac{(5.2)(3.5)}{2}$$

$$= 9.1 \text{ in}^2$$

$$\text{Height} = \frac{\text{Volume}}{\text{Base area}}$$

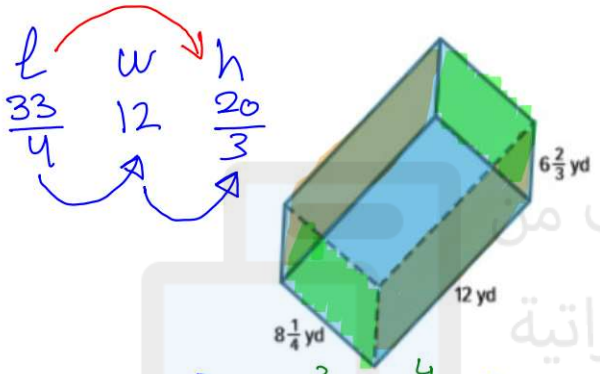
$$= \frac{54.6}{9.1}$$

$$= 6 \text{ in}$$

Part (1): 10 MCQ 3 marks per question

Outcome: Find the surface areas of solids by relating the nets of those solids **Textbook #495 questions 1-6**

1) **Find the surface area** of the prism. Round to the nearest tenth if necessary.

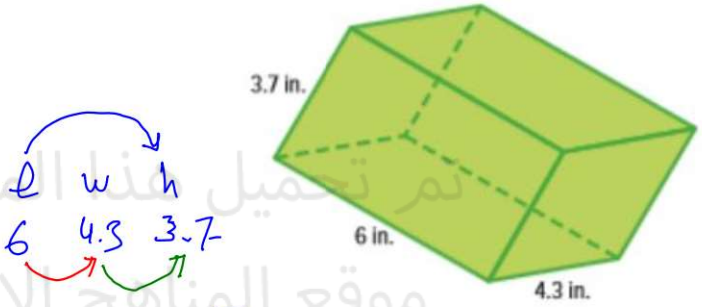


$$S.A = 2\left[\frac{33}{4}\cdot 12 + 12\cdot\frac{20}{3} + \frac{33}{4}\cdot\frac{20}{3}\right]$$

$$= 2[99 + 80 + 55]$$

$$= 468\ yd^2$$

2) **Find the surface area** of the prism. Round to the nearest tenth if necessary.



$$S.A = 2[6(4.3) + 4.3(3.7) + 6(3.7)]$$

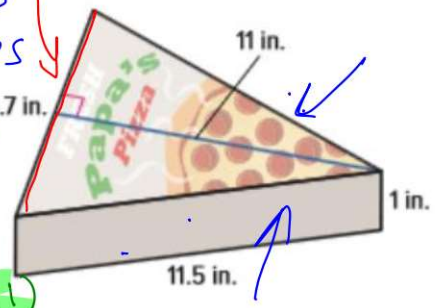
$$= 2[25.8 + 15.91 + 22.2]$$

$$= 2[63.91]$$

$$= 127.82$$

$$\simeq 127.8\ in^2$$

3) **How much cardboard** is needed to make the single slice of pizza box shown?



2 triangles
3 rectangles

Area of 2 triangles $= 2\cdot\frac{bh}{2}$

$= (6.7)(11)$

$= 73.7\ in^2$

area of 2 rectangles $= 2(11.5)(1)$

$= 23\ in^2$

1 rectangle $= 6.7(1) = 6.7\ in^2$

$SA = 2\triangle + 3\square$

$= 73.7 + 23 + 6.7$

$= 103.4\ in^2$

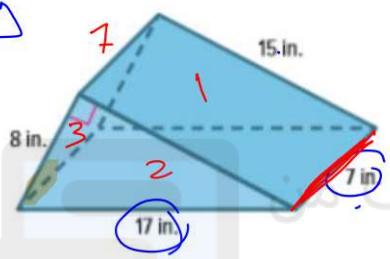
Part (1): 10 MCQ 3 marks per question

the End

Outcome: Find the surface areas of solids by relating the nets of those solids

Textbook #495 questions 1-6

4) **What is the surface area** of the triangular prism-shaped toy car ramp shown?



Area of 2 Δ

$= 2 \cdot \frac{bh}{2}$

$= 8(15)$

$= 120\ in^2$

area of 1 rectangle $= 7(15)$

$= 105\ in^2$

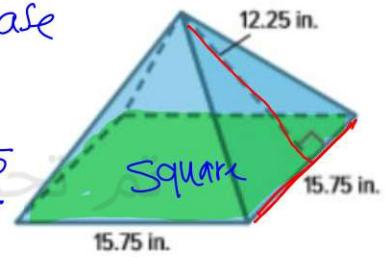
area of rectangle 2 $= 7(17) = 119\ in^2$

area of rectangle 3 $= 8(7) = 56\ in^2$

$S.A = 120 + 105 + 119 + 56$

$= 400\ in^2$

5) **Find the surface area** of the pyramid. Round to the nearest tenth if necessary.



Area of the base

$= (15.75)^2$

$= 248.0625$

$\simeq 248.1\ in^2$

area of 4 triangles

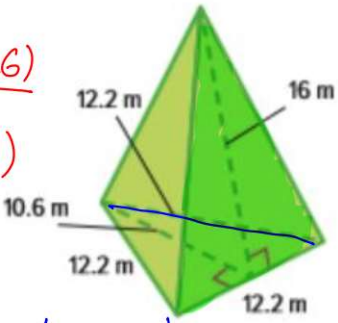
$= 4 \cdot \frac{bh}{2} = 2(15.75)(12.25)$

$= 388.9\ in^2$

$S.A = 248.1 + 388.9$

$\simeq 634\ in^2$

6) **Find the surface area** of the pyramid. Round to the nearest tenth if necessary.



Base area

$= \frac{12.2(10.6)}{2}$

$= 6.1(10.6)$

$= 64.7$

area of 3 triangles

$= 3 \cdot \frac{(12.2)(16)8}{2}$

$= 3(12.2)(8) = 24(12.2)$

$= 292.8$

$S.A = 64.7 + 292.8$

$= 357.5\ m^2$