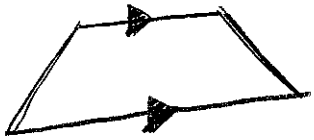
Unit 7 Practice Test Name: Key

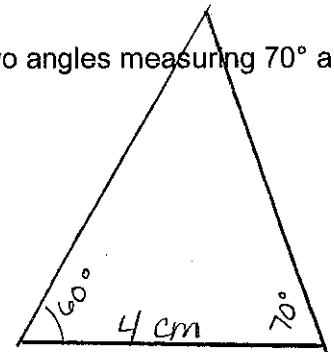
1. The radius of a circle is 15 ft, what is the diameter?

30 ft.

2. Draw a quadrilateral that has exactly one pair of parallel sides.



3. Construct a triangle that has two angles measuring 70° and 60° with a side between them that measures 4 cm.



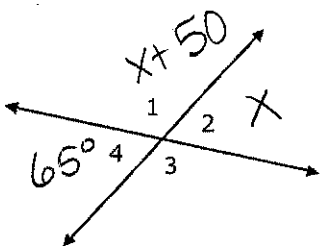
4. Which measurements can make a triangle?

a. 4 cm, 8 cm, 6 cm — $4+6=10>8$
~~b. 7 cm, 5 cm, 13 cm~~ — $7+5=12<13$
~~c. 9 cm, 3 cm, 6 cm~~ — $6+3=9=9$
d. 8 cm, 3 cm, 10 cm — $8+3=11>10$

5. If the diameter of a circle is 24 in, what is the radius?

12 in

6. If the measure of ∠2 is x and the measure of ∠1 is x + 50, what is the measure of angle ∠4?

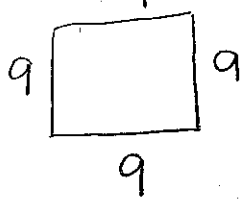


$180=2x+50$
$130=2x$
$65=x$

65°

7. A square has a perimeter of 36 inches, what is the area of the square?

$9 \cdot 9 = 81\ in^2$



8. Which could not represent the angles of a triangle?

a. 70°, 30°, 80° — $70+30+80=180$
b. 75°, 25°, 85° — $75+25+85=185$
c. 70°, 70°, 70° — $70+70+70=210$
d. 60°, 60°, 60° — $60+60+60=180$
e. 10°, 40°, 130° — $10+40+130=180$

9. A round table has a diameter of 40 in. What is the approximate circumference of the table? Use $\frac{22}{7}$ for π.

$C = \pi d$

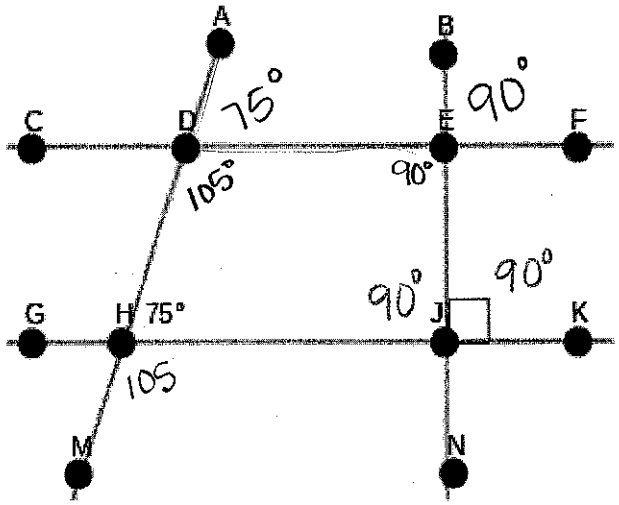
$C = \frac{22}{7}(40) = 125\frac{5}{7}$ in

10. A frisbee has a radius of 11 cm. What is the area of the frisbee to the nearest who number? Use 3.14 for π.

$A = \pi r^2$

$3.14(11^2) = 379.94\ cm^2$

Use the following to answer questions 11-13.



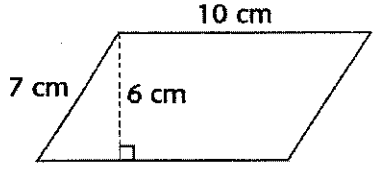
11. m∠HDE = 105°

12. m∠ADE = 75°

13. m∠BEF = 90°

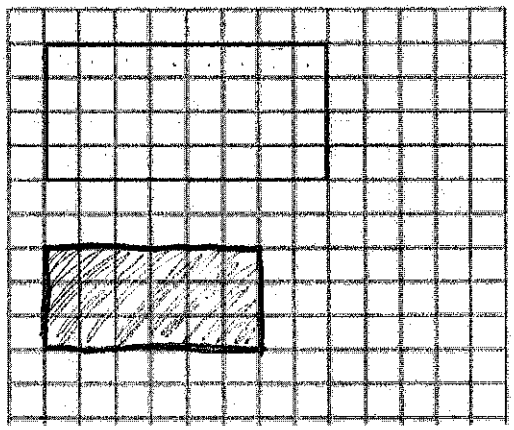
14. What is the area of the figure

$10 \times 6 = 60\ cm^2$

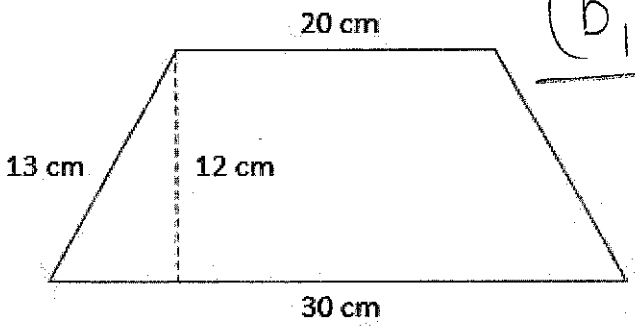


15. Draw a triangle that has 2 congruent sides

16. Redraw the figure below with a scale factor of $\frac{3}{4}$



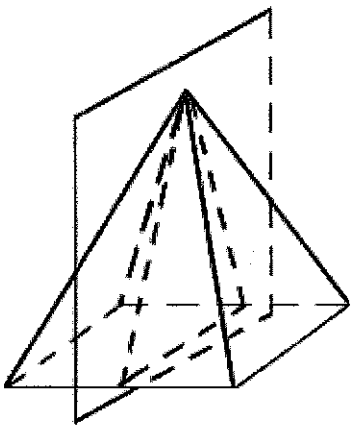
17. What is the area of the figure?



$\frac{(b_1+b_2)h}{2}$ $\frac{(20+30)12}{2}$

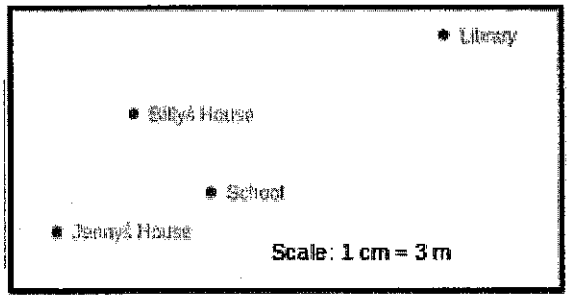
300 cm^2

18. What is the shape of the cross section?



triangle

Use the map to answer the following question



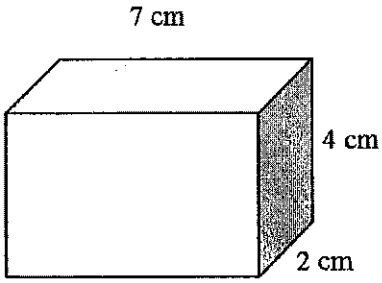
19. What is the actual distance from Jennyś house to the school?

2cm 6m

20. What is the actual distance from Billyś house to the library?

4.3cm 12.9m

21. What is the surface area of the shape below?



$2(7 \cdot 2) = 28$

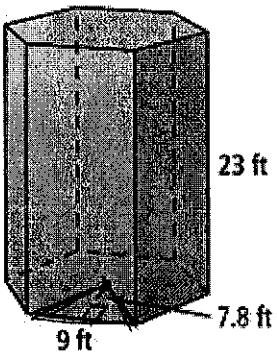
$2(7 \cdot 4) = 56$

$2(4 \cdot 2) = 16$

$+$

$100\ cm^2$

22. What is the volume of this shape?



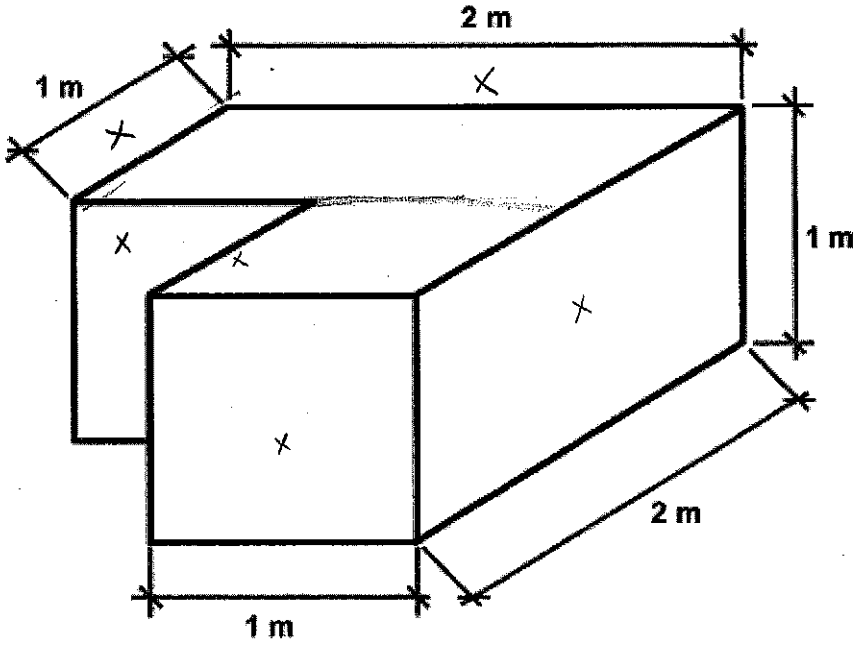
(base area)h

$9(7.8)6 = 421.2$

$\times 23$

$9687.6\ ft^3$

23. What is the surface area of the figure?



Sides
$1 \cdot 1 \quad 1$
$2 \cdot 1 \quad 2$
$1 \cdot 1 \quad 1$
$1 \cdot 1 \quad 1$
$1 \cdot 1 \quad 1$
$2 \cdot 1 \quad 2$
$= 8$

$14 m^2$

top
$2 \cdot 1 \quad 2$
$1 \cdot 1 \quad 1$
$= 3$

bottom
$2 \cdot 1 \quad 2$
$1 \cdot 1 \quad 1$
$= 3$