Homework Solutions p. 625

15. Area is multiplied by 64
16. Area is multiplied by 5.76
17. Area is multiplied by 28
18. Area is multiplied by 9
19. Area is divided by 16 (or mult. by $1/16$)
20. Area is multiplied by $1/7$
21. Area is multiplied by 4

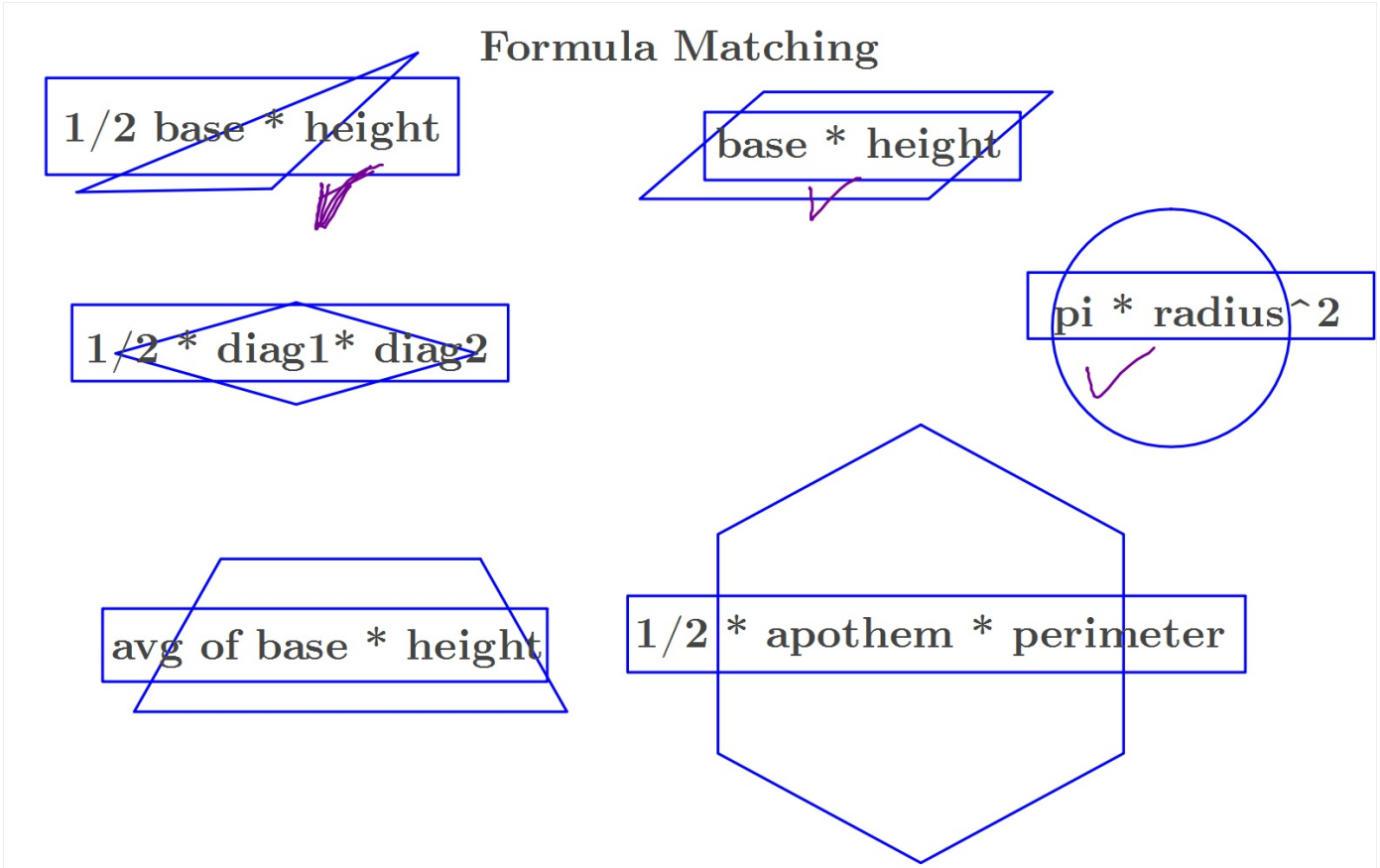
25. Area is multiplied by 9
26. Area is multiplied by 9
27. Area is multiplied by 9

Test on Area:
- 4 multi-part questions
- Cannot use area booklet (study with it, though)
- Formulas provided: trapezoids, rhombuses, kites, regular polygons.
- Need to know from **memory**: triangles, rectangles/paralleograms, circle area and circumference

- Commonly missed on quiz: area of rhombus (finding diagonal with Pythagorean Theorem); area of a regular polygon (finding apothem length using trigonometry)

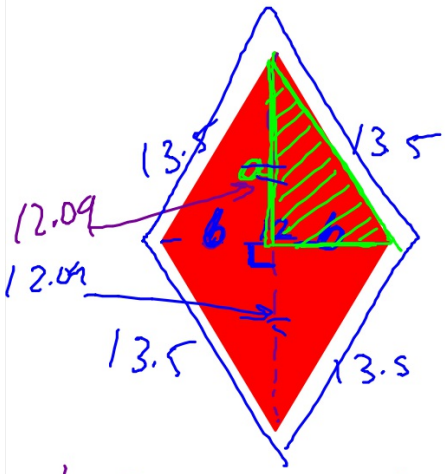
- On test, not on quiz: composite figure area; dimensional effects

Formula Matching



Find the area of a rhombus with perimeter 54cm and one diagonal length of 12.

$\frac{54}{4} = 13.5$



$a^2 + 6^2 = 13.5^2$

$a^2 + 36 = 182.25$

$-36 \quad -36$

$\sqrt{a^2} = \sqrt{146.25}$

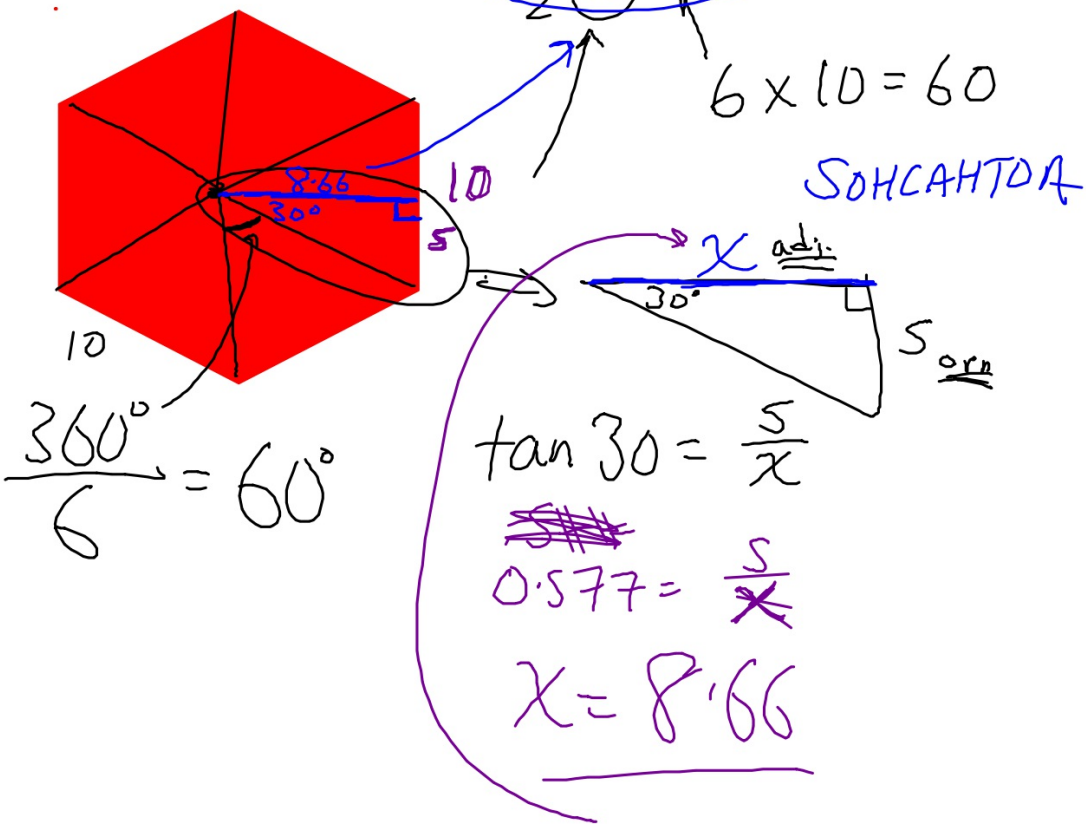
$a = 12.09$

$\frac{1}{2}(12)(24.18)$

$= 145.18$

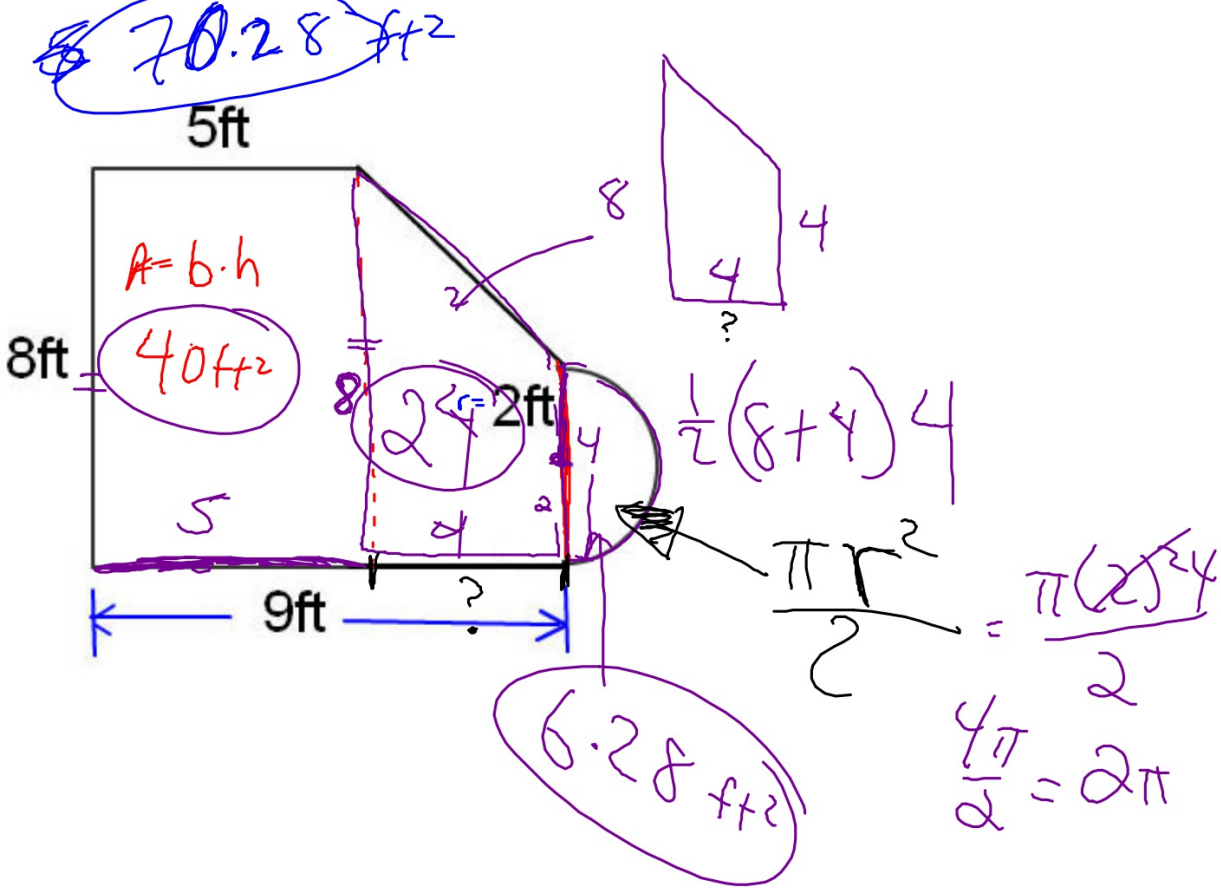
$\times 2$

Find the area of a regular hexagon with each side length 10cm.



Find the area of the composite figure:

~~70.28 ft²~~



Review problems:

p. 644: 3-7, 9, 11-14

~~**p. 645: 1-6**~~