UNIT 6: IRRATIONAL MATH

No calculator unless instructed.

Use the table of perfect squares!

Irrational Numbers

Complete the table (Area)

Side^2		Perfect Squares
1^2	=	1
2^2	=	4
3^2	=	9
4^2	=	16
5^2	=	25
6^2	=	36
7^2	=	49
8^2	=	64
9^2	=	81
10^2	=	100
11^2	=	121
12^2	=	144
13^2	=	169
14^2	=	196
15^2	=	225
16^2	=	256
17^2	=	289
18^2	=	324
19^2	=	361
20^2	=	400
25^2	=	625

Estimate the following irrational numbers to the nearest tenth. Show your work as demonstrated in class.

*1 $\sqrt{28}$ ≈ 5.3

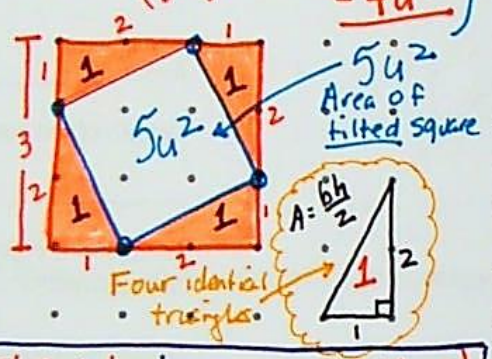
*2 $\sqrt{115}$ ≈ 10.8

*3 $\sqrt{52}$ ≈ 7.2

4) $\sqrt{13}$

1) State the slope and the perpendicular slope for each line segment. 2) Draw a square using the segment as one side length. 3) Find the area of the square you drew. Show all work.

5) *28 *52 *115



Area: $5u^2$

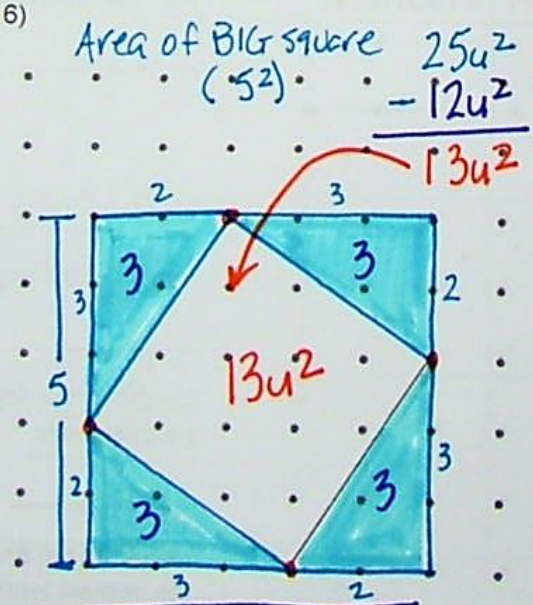
Length of the segment as a square root: $\sqrt{5}$

Length of the segment with a ruler to the nearest tenth: 2.2cm

Length of the segment with a calculator to the nearest tenth: (not on quiz) ≈ 2.2

slope: $\frac{1}{2}$ | $\perp$ slope: $-\frac{2}{1}$ (down 2 right 1)

6)



Area: $13u^2$

Length of the segment as a square root: $\sqrt{13}$

Length of the segment with a ruler to the nearest tenth: 3.6cm

Length of the segment with a calculator to the nearest tenth: (not on quiz) ≈ 3.6

slope: $\frac{3}{2}$ | $\perp$ slope: $\frac{2}{-3}$