1) Erica needs to determine if the expressions $8x + 12$ and $4(2x + 3)$ are equivalent or not. She says that they are not and shows the work below to explain why. Is Erica correct? If she is, explain why. If she isn't, fix her mistake.

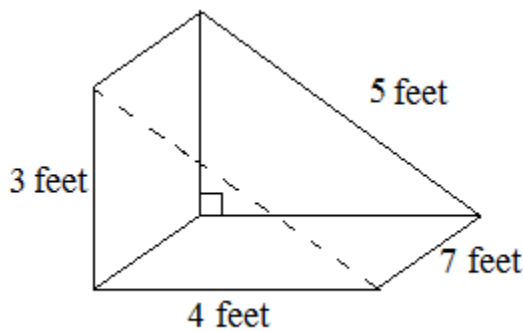| $8x + 12$	$4(2x + 3)$	Since 91 is not the same
Let x = 0	Let x = 0	as 92, these expressions
80+12 = 91	4 (20+3)=4 (23)=92	are not equivalent.

Simplify the following expressions:

2) $-2(3x + 8) - 4x$ 3) $3 - 8(5x - 10)$ 4) $3x + 4y - 10x - 15y - x$

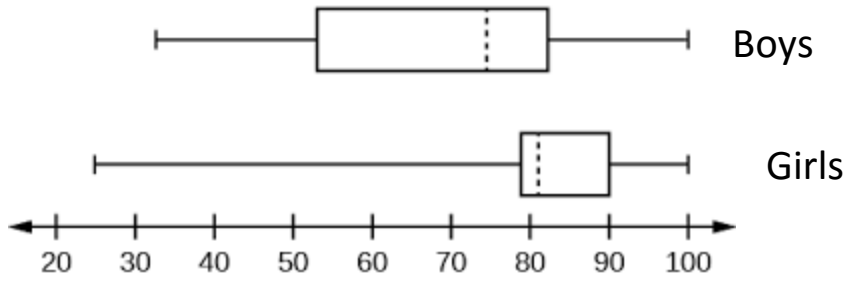5) Find the surface area of the triangular prism using the formula $SA = 2B + Ph$

5 feet

3 feet

7 feet

4 feet

Ms. Butterfield's class and Ms. Feld's class took the same test. Here is the data from the classes:

	Mean	MAD
Ms. Butterfield's Class	88	4.5
Ms. Feld's Class	79	9.2

6) Which class has the highest scores overall? How do you know?

7) Which class has the most variance? How do you know?

8) Forty girls and forty boys were surveyed. The box plot below shows the number of jumping jacks boys and girls and do in one minute. Do boys or girls have more variance? How do you know?

Boys

Girls

20   30   40   50   60   70   80   90   100

9) Write two expressions that are equivalent. Prove that they are equivalent.

Expression #1:   Expression #2:

10) Explain why the following is not correct.

$$2 + 6 = 8 + 10 = 18 - 4 = 14 - 9 = 5$$