

+10

Name Key

Quiz #2: Take-Home

Directions: Please show all your work since partial credit is given. Answers without the necessary work will receive no credit. The quiz is due no later than **Monday, September 14**, at the beginning of class.

1. Simplify the following expressions.

a) $5(x+12)$

+1

$$\boxed{5x+60}$$

+1 b) $5 \cdot 3^4 + 16 \div 8 - 2^2$

$$5 \cdot 81 + 16 \div 8 - 4$$

$$405 + 2 - 4$$

$$407 - 4$$

$$\boxed{403}$$

+1

c) $4(y-3)$

$$\boxed{4y-12}$$

+2 d) $2+5[9+3(4-17^0)]$

$$2+5 \cdot [9+3(4-1)]$$

$$2+5 \cdot [9+3 \cdot 3]$$

$$2+5 \cdot [9+9]$$

$$2+5 \cdot 18$$

$$2+90$$

$$\boxed{92}$$

+1

e) $15-6(9-7)$

$$15-6 \cdot 2$$

$$15-12$$

$$\boxed{3}$$

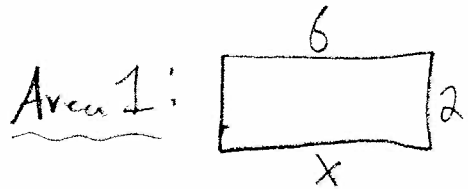
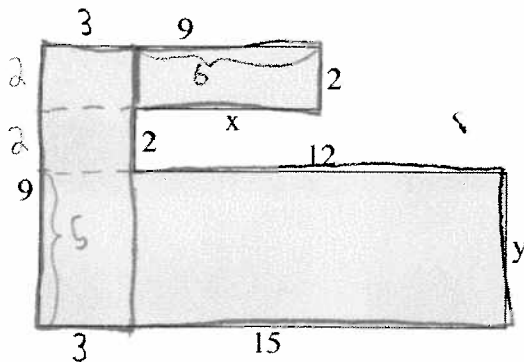
+6

A1

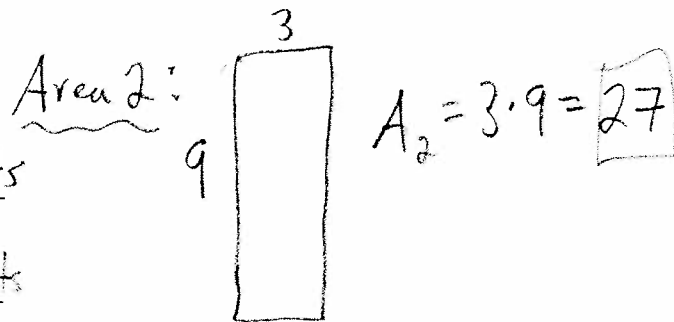
2. Frieda earns \$16 an hour for the first 40 hours she works each week. She has \$129 deducted from each check for taxes and retirement. If she works 34 hours this week, what is her take-home pay?

$$\begin{aligned}
 (\text{Take Home}) &= 16 \cdot 34 - 129 \\
 &= 544 - 129 \\
 &= \boxed{\$415}
 \end{aligned}$$

3. Use the following figure for the questions below.



$$A_1 = 2 \cdot 6 = \boxed{12}$$

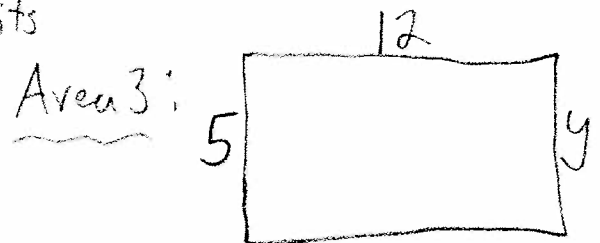


$$A_2 = 3 \cdot 9 = \boxed{27}$$

+1 a) The length of the side labeled x is 6 units

+1 b) The length of the side labeled y is 5 units

+1 c) The area of the composite figure is 99 units²



$$A_3 = 5 \cdot 12 = \boxed{60}$$

$$\begin{aligned}
 (\text{Total Area}) &= 12 + 27 + 60 \\
 &= 99
 \end{aligned}$$

+4