

3. A strategy that I tried to help prevent this mistake was: Like you saw I put the problem in a different more clear form.

4. Here is a problem from today that I am solving. I will show how I used my strategy to avoid the same mistake. I will also show the places where I am meeting the Success Criteria. There may be a few Success Criteria that I have not yet met or that will not be clearly evident from this particular problem.

Formula = Bh

$$43 \cdot 29 = 1247$$

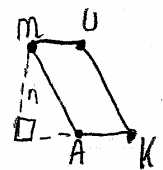
$$40 \cdot 20 = 800$$

$$3 \cdot 20 = 60$$

$$40 \cdot 9 = 360$$

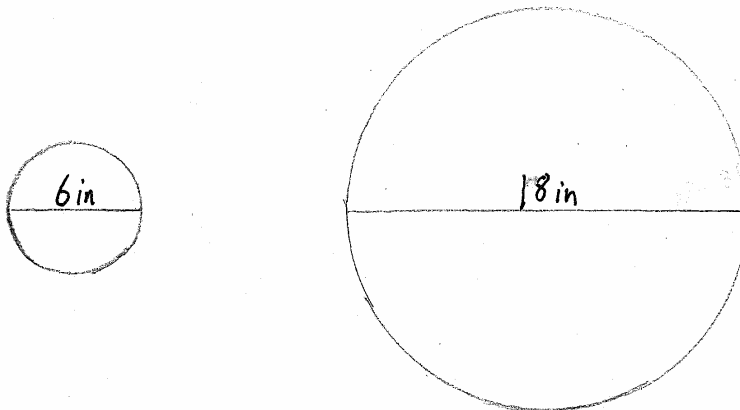
$$3 \cdot 9 = 27$$

1247 sq cm

Problem	Success Criteria
<p>Find the area of Parallelogram</p>  <p> <math>m = 43 \text{ cm}</math>  <math>h = 29 \text{ cm}</math>  <math>AK = 60 \text{ cm}</math> </p>	<p>1247</p> <ul style="list-style-type: none"> <li>I completed the math operation by multiplying correctly</li> <li>I did identify and correct my mistake.</li> <li>I matched the correct symbols. (m and n) and matched them with the correct numbers.</li> </ul>

### Comparing Pizzas

A diagram of a personal size frozen pizza and an extra large frozen pizza are shown below. (The diagram is drawn to scale)



A young man says that "the extra large has three times the amount of pizza as the personal size because the diameter is three times longer."

Is this young man correct? If not, correct his statement and give mathematical evidence that proves your statement is correct.

NO, you get 9 times the amount of pizza because the area is 9 times greater.

$$A = 9\pi \text{ in}^2 \text{ or about } 28 \text{ in}^2$$

$$A = 81\pi \text{ in}^2 \text{ or about } 254 \text{ in}^2$$

- a. Give the diameter of a pizza that has about twice the amount of pizza as the personal size. Round the diameter to the nearest hundredth.

$$A = 18\pi \text{ in}^2 \quad \sqrt{18} = r \quad r = 4.24 \text{ in} \quad d = 8.49 \text{ in}$$

- b. Give the diameter of a pizza that has about three times the amount of pizza as the personal size. Round the diameter to the nearest hundredth.

Algebra

Chapter 10 Polynomials and Factoring

Section 10.6 Factoring  $ax^2+bx+c$

Homework Problem

Notes from class discussion, including student work

28. **Summer Business** Your friend's weekly revenue  $R$  (in dollars) from her tie-dye T-shirts business can be modeled by

$$R = -2t^2 + 37t + 60$$

where  $t$  represents the week of sales, with  $t = 0$  for the first week. In the first week, 3 T-shirts were sold. After that, the sales increased by 2 T-shirts per week. Did the price of T-shirts remain constant during the 8-week summer season? Explain.

Students commented  $R$  is revenue,  $t$  is time in weeks, but question asked for price of T-shirt. This confused many, so we discussed what we know, what information is given and where can we go from there.

$t$                        $R$                       Price of T-Shirts  
 time in weeks              Revenue                       $\frac{\text{Revenue}}{\text{\# of shirts sold}}$   
 $t = 0$  week 1

$t$	$R$	Price of T-Shirts
0	60	20
1	95	19
2	126	18
3	153	17



Some students shared that they had made a table to determine the price of the T-shirt each week.

\* Even though this answers the homework question (the T-shirt price does not remain constant) students continued discussion.

on calculator graph  
as linear w/ negative slope

$$-2t^2 + 37t + 60$$

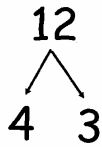
$$(2t+3)(-t+20)$$

(# shirts sold) (price of shirt) = R

$$-2t^2 + 37t + 60$$

$$\frac{R}{2t+3}$$

#Tshirts sold



relationship between  
factors and division

$$2t+3 \overline{) -2t^2 + 37t + 60}$$

$$-t+20$$

$$2t+3 \overline{) R}$$