

Geometry Algebra I

4/2011

① Perimeter, cm of rectangle with length 14 cm, width 9 cm.

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$$46 \text{ cm} = P$$

② 1st term in geo. seq. is -4,  
6th term? (geometric)  
-4, 8, -16, 32, -64...

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$$128$$

③  $r = 8, b = 3, g = -5$   
 $(r + b - g)(b + g)$

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$$-32$$

## Arithmetic Sequence

ADD or SUBTRACT A CONSTANT  
TO get next term

(ex)  $2, 6, 10, \dots$

(ex)  $15, 9, 3, \dots$

## Geometric Sequence

multiply A constant to  
get next term.

(ex)  $2, 16, 128, \dots$

(ex)  $12, 6, 3, \dots$

(ex)  $10, -20, 40, \dots$

- ④ Every year on Inari's birthday she gets \$10 plus \$2 for each year of her age. How old will she be when she gets \$34.
- 

$$T = 10 + 2y$$

$$34 = 10 + 2y \quad \therefore \boxed{y = 12}$$

$$24 = 2y$$

$$12 = y$$


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⑤  $-2x + 3 = -21$

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$$\boxed{x = 12}$$

⑥ Mean?

62, 100, 93, 62, 72, 78,  
50, 85, 62, 36

$\boxed{=}$

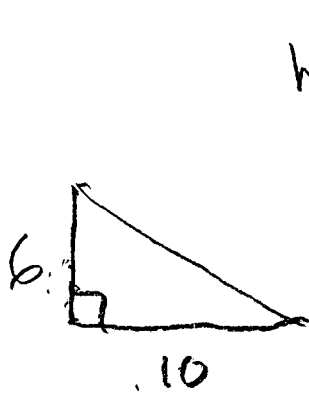
$$\begin{array}{r}
 186 \\
 100 \\
 93 \\
 72 \\
 78 \\
 86 \\
 85 \\
 \hline
 10 \overline{) 700} = \boxed{70}
 \end{array}$$

⑦ CAKE  $1\frac{2}{3}$  cups cocoa, frosting  $\frac{3}{4}$  cups of cocoa.

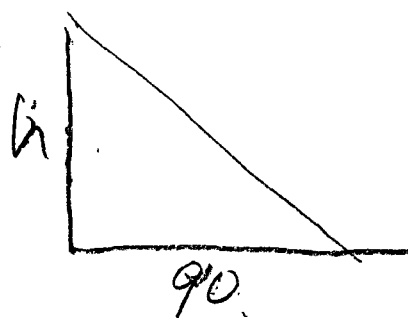
How many cups of cocoa needed?

$$\begin{array}{r}
 \left(\frac{4}{4}\right) \cdot \frac{5}{3} + \frac{3}{4} \cdot \left(\frac{3}{3}\right) \\
 \frac{20}{12} + \frac{9}{12} = \frac{29}{12} = \boxed{2\frac{5}{12}}
 \end{array}$$

- ⑧ 6 ft pole casts 10 ft shadow.  
 Same time a tree casts a  
 90 foot shadow.  $h$  of tree?  
 (height)
- 



height  
of  
tree



$$\frac{10}{90} = \frac{6}{h}$$

height  
of tree

$$10h = 540$$

$$h = 54 \text{ ft}$$

$$\frac{90}{10} = \frac{h}{6}$$

$$6 \cdot 9 = h = 54$$

⑨ Rent car,  
 total cost  $\Rightarrow$  \$35.00 each day  
 plus 37.5 cents per mile the  
 car is driven.  
 Find cost to rent for 4 days  
 and driving 300 mi.

$$35 \cdot 4 = 140$$

300	112.5	
.375	252.50	\$
1500		

$$2100$$

$$900$$

$$\hline 172500$$