EDUCATIONAL ASSIGNMENT for JOSEPH JOHN WUNDERLICH for 11th grade

This assignment covers the following Educational Objectives (Subjects marked with a "■" are the main subject, and those marked with an "□" are secondary subjects):

- ■ Geometry

Solve the following problems. Use a pencil.

Simplify the ratio.

1. 6 in.:28 in.

$\frac{6\text{ in.}}{28\text{ in.}} \div 2 = \frac{3}{12} \div 3 = \frac{1}{4}$

1 to 4

2. $\frac{18\text{ cm}}{6\text{ cm}}$

$\frac{18}{6} \div 6 = \frac{3}{1}$

3 to 1

3. $\frac{27\text{ in.}}{3\text{ ft}}$

$\frac{27\text{ in.}}{36\text{ in.}} \div 9 = \frac{3}{4}$

3 to 4

Solve the proportion.

7. $\frac{x}{2} = \frac{7}{14}$

$x \cdot 14 = 2 \cdot 7$

$x \cdot 14 = 14$

$x = 1$

8. $\frac{5}{7} = \frac{y+1}{21}$

$5 \cdot 21 = (y+1) \cdot 7$

$105 = \quad \div 7$

$\div 7$

$15 = (y+1)$

$-1 \quad -1$

$14 = y$

9. $\frac{27}{x-5} = \frac{3}{2}$

$27 \cdot 2 = (x-5) \cdot 3$

$54 = 3(x-5)$

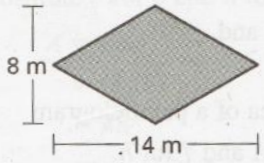
$\div 3 \quad \div 3$

$18 = x - 5$

$23 = x$

Find the area of the rhombus.

8.



$\frac{1}{2} \cdot 8m \cdot 14m$

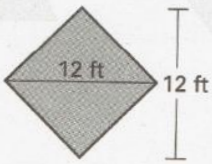
$\frac{1}{2} \cdot 112$

56m

14
×8
112

56
2|112
−10↓
12

10.



$\frac{1}{2} \cdot 12 \cdot 12$

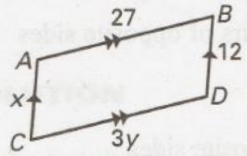
$\frac{1}{2} \cdot 144$

72m

72
2|144
−14↓
04

Find the values of *x* and *y* in the parallelogram.

1.

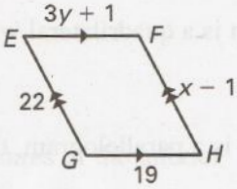


$3y = 27$
$3 \div 3$

$x = 12$

$y = 9, \quad x = 12$

2.

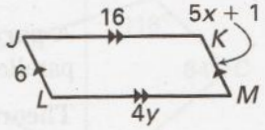


$3y + 1 = 19$
$-1 \quad -1$
$3y$
$\div 3 \quad \div 3$
18

$x - 1 = 27$
$+1 \quad +1$
$x = 23$

$y = 6, \quad x = 23$

3.



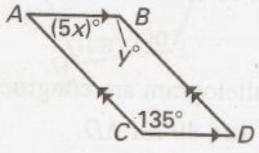
$4y = 16$
$\div 4 \quad \div 4$

$5x + 1 = 6$
$-1 \quad -1$
$5x = 5$

$y = 4 \quad x = 1$

Find the values of *x* and *y* in the parallelogram.

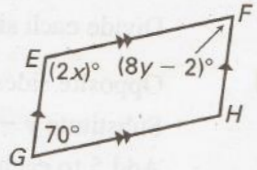
4.



$180 - 135 = 45$
$45 \div 5 = 9$

$x = 9$
$y = 135$

5.

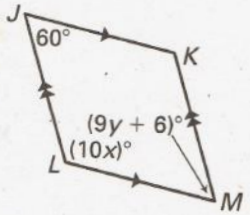


$180 - 70 = 110$
$110 \div 2 = 55$

$8y - 2 = 70$
$8y = 72$
$\div 8 \quad \div 8$
$y = 9$

$x = 55$

6.



$180 - 60 = 120$
$120 \div 10 = 12$

$9y + 6 = 60$
$9y = 54$

$y = 6$
$x = 12$