

Angeles City Science High School

Mathematics 9

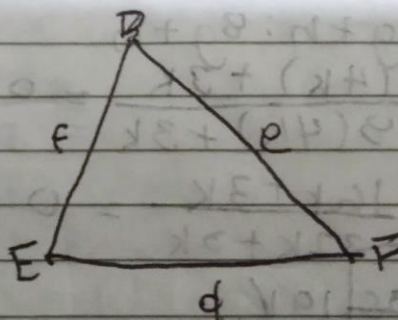
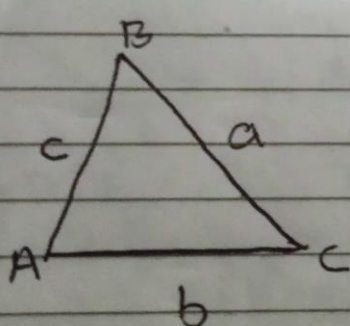
Name: Paul Gerald D. Pare

Section: 9 - Adenine

Practice C

Solve for the unknown.

4. Given $\triangle ABC \sim \triangle DEF$



7. If $a=3$, $b=4$, $c=2$ and $d=6$, find f and e .

$$\frac{3}{e} = \frac{4}{6} = \frac{2}{f}$$

$$\frac{3}{e} = \frac{4}{6}$$

$$9e = 24$$

$$e = \frac{24}{3}$$

$$e = 8 \text{ units}$$

$$\frac{4}{6} = \frac{2}{f}$$

$$4f = 12$$

$$f = \frac{12}{4}$$

$$f = 3 \text{ units}$$

2. If $a=5$, $b=7$, $c=2$, and $f=4$, find d and e .

$$\frac{1}{2} = \frac{5}{e} = \frac{7}{d}$$

$$\frac{1}{2} = \frac{5}{e}$$

$$e = 2(5)$$

$$e = 10 \text{ units}$$

$$\frac{1}{2} = \frac{7}{d}$$

$$d = 14 \text{ units}$$

3. If $a=3$, $b=6$, $c=4$, $d=24$, $e=12$, and $f = x+5$

$$\frac{4}{x+5} = \frac{3}{24} = \frac{6}{12} = \frac{1}{4}$$

$$\frac{4}{x+5} = \frac{1}{4}$$

$$4(4) = x+5$$

$$16 = x+5$$

$$-(-x = -16 + 5)$$

$$x = +11$$

4. If $a=5$, $b=x+2$, $c=x+1$, $d=8$, $e=10$,
and $f=6$, find x .

$$\frac{2 \times 10}{1 \times 5} = \frac{6}{x+1} = \frac{8}{x+2}$$

$$\frac{2}{1} = \frac{6}{x+1}$$

$$2(x+1) = 6$$

$$2x + 2 = 6$$

$$2x = 6 - 2$$

$$2x = 4$$

$$2$$

$$\boxed{x=2}$$

$$\frac{2}{1} = \frac{8}{x+2}$$

$$2(x+2) = 8$$

$$2x + 4 = 8$$

$$2x = 8 - 4$$

$$2x = 4$$

$$2$$

$$\boxed{x=2}$$