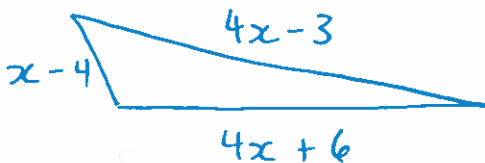


## C: Adding/Subtracting Polynomials Continued

### Examples

1. A triangle is shown below



a) What does  $(x-4) + (4x-3) + (4x+6)$  represent?

The perimeter of the triangle.

b) Simplify the expression.

$$(x-4) + (4x-3) + (4x+6)$$

$$= 9x - 1$$

c) If  $x = 4$  what is the value of the perimeter?

$$P = 9x - 1$$

$$= 9(4) - 1$$

$$P = 35$$

2. You can rent a trailer for \$450 per day and a truck for \$600 per day. It costs \$200, round trip to get back to the job site.

a) Write an expression for the total cost of renting the truck.

$x$  - # of days.

$$\text{Cost} = 450x + 200$$

b. What is the expression for the cost of renting the truck.

$x$  - # of days.

$$C = 600x + 200$$

c) In simplest form what is the cost to rent both the truck & trailer?

$$C = \text{Truck} + \text{Trailer}$$

$$= (450x + 200) + (600x + 200)$$

$$= 1050x + 400$$

d) What is the difference between renting the truck and the trailer in the simplest form?

$$C = \text{Truck} - \text{Trailer}$$

$$= (600x + 200) - (450x + 200)$$

$$= 600x + 200 - 450x - 200$$

$$= 150x$$

3. The cost to print " $n$ " copies of a book is  $20n + 1050$  dollars.  
The cost to ship the books is  $2n + 100$  dollars.

a) What is the simplest expression for total cost?

$$C = (20n + 1050) + (2n + 100)$$

$$= 22n + 1150$$

b) What is the total cost to print & ship 800 books?

$$C = 22n + 1150$$

$$= 22(800) + 1150$$

$$= 17600 + 1150$$

$$= \$18750$$

22.5

2) What does  $(20n + 1050) - (2n + 100)$  represent in simplest form?

$$(20n + 1050) - (2n + 100)$$

$$= 20n + 1050 - 2n - 100$$

$$= 18n + 950$$

↳ Difference in cost between printing : shipping.

Assignment: Pg. 197 #16-25

