Algebra I
2-7
Consecutive Integer Problems

Consecutive - In a row

integer - a positive/negative whole number

Solve.

*1) The sum of two consecutive integers is 93. Find Them.

Let x = smallest [46]
$x+1$ = largest [47]

$$x+(x+1)=93$$
$$2x+1=93$$
$$2x+1-1=93-1$$
$$\frac{2x}{2}=\frac{92}{2} \quad \{46\}$$
$$x=46$$

---

*2) The sum of three consecutive even integers is 72. Find them.

Let x = smallest [22]
$x+2$ = 2nd [24]
$x+4$ = largest [26]

$$x+(x+2)+(x+4)=72$$
$$3x+6=72$$
$$3x+6-6=72-6$$
$$\frac{3x}{3}=\frac{66}{3}$$
$$x=22$$
$$\{22\}$$

---

*3) The product of four consecutive odd numbers is 2460. Find them.

Let x = Smallest
$x+2$ = 2nd
$x+4$ = 3rd
$x+6$ = largest

$$x(x+2)(x+4)(x+6)=2460$$

* We don't know how to solve.

---

*4) The largest of three consecutive even integers is three times the smallest. Find them.

Let x = smallest [2]
$x+2$ = 2nd [4]
$x+4$ = largest [6]

$$x+4=3x$$
$$x-x+4=3x-x$$
$$\frac{4}{2}=\frac{2x}{2}$$
$$2=x$$
$$\{2\}$$

Pg 77
1-16 all

(Solve any that ask for the sum, set up those asking for a Product.)