

Session - 3
Arithmetic Progression

1. $a_{27} - a_7 = 84$

$$(a + 26d) - (a + 6d) = 84$$

$$26d - 6d = 84$$

$$d = \frac{84}{20}$$

$$d =$$

2.

$$d = -4$$

find a

$$a_7 = 4$$

$$a_7 = a + 6d$$

$$a_7 = a + 6(-4)$$

$$4 + 24 = a$$

$$28 = a$$

3. $\frac{2K+1}{a_1}, 3K+3, 5K-1$

~~a₁~~

$$a_2 - a_1 = d$$

$$a_3 - a_2 = d$$

$$\Rightarrow (3K+3) - (2K+1) = d$$

$$3K - 2K + 3 - 1 = d$$

$$K + 2 = d$$

$$24 - 1 = d$$

$$2K - 4 = d$$

$$K + 2 = 2K - 4$$

$$K = 5$$

4. $\frac{1}{x+2}, \frac{1}{x+3}, \frac{1}{x+5}$

H.W

5. $a_n = a + (n-1)d$
 $a_8 = 14 + (n-1)(7)$
 $a_8 = 14 + 7n - 7$
 $a_8 = 7 + 7n$

6. 200 and 500 div by 8
 $200 \div 8, 216 \dots\dots\dots 496$

7. find the 9th Term of A.P
 $5, 9, 13, \dots, 185$ from the end
 $a_9 = 185 - 8(-11)$
 $a_9 = 185 + 8(-11)$
 $a_9 = 185 - 88$
 $a_9 = 97$

7. find 9th Term of A.P
 $-5, -\frac{5}{2}, 0, \dots$ from the end