

HLW

1.8) 25)

1, 2, ..., 2n

n is odd

1, 2, ..., 2n

|j-k|

The int we end up with must be the same parity as $1+2+\dots+2n$

$$27) x^4 = (10K+0)^4 = 10000K^4 + 0$$

$$x^4 = (10K+1)^4 = 10000K^4 + 4K^3 + 6K^2 + 4K + 1$$

$$x^4 = (10K+2)^4 = 10000K^4 + 8K^3 + 24K^2 + 32K + 16$$

$$x^4 = (10K+3)^4 = \dots \dots 81$$

$$x^4 = (10K+4)^4 = \dots \dots 256$$

$$x^4 = (10K+5)^4 = \dots \dots 625$$

$$(t+w)^4 = t^4 + 4t^3w + 6t^2w^2 + 4t^1w^3 + w^4$$

$$35) x = \frac{a}{b} \quad b \neq 0 \quad \frac{a}{b} < \frac{c}{d} \quad a < c$$

$$y = \frac{c}{d} \quad c \neq 0 \quad \frac{a+1}{b} = \frac{c}{d}$$

$$x+y = \frac{a}{b} + \frac{c}{d} \quad x = \frac{a + \frac{1}{2}\sqrt{2}}{b}$$

$$\frac{p}{q} < \frac{r}{s} \quad \frac{p}{q} + x\sqrt{2} < \frac{r}{s}$$

$$x = \frac{p}{q} + \frac{\sqrt{2}b}{2} \quad x\sqrt{2} < \frac{r}{s} - \frac{p}{q}$$

$$d = \frac{r}{s} - \frac{p}{q} \quad 0 < x < \frac{d}{\sqrt{2}}$$