

11th August

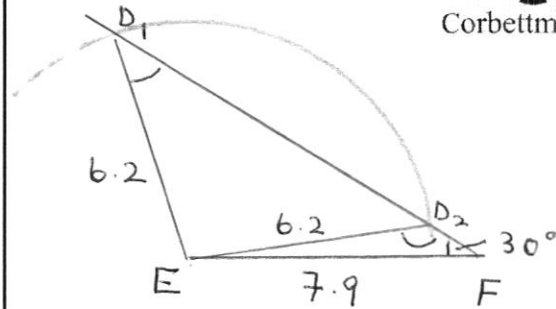


Corbettmaths

There are two possible triangles DEF, where $DE = 6.2\text{cm}$, $EF = 7.9\text{cm}$ and $\angle DFE = 30^\circ$

Find the difference between their largest angles.

	D	E	F
①	39.6°	110.4°	30°
②	140.4°	9.6°	30°



$$\hat{EDF} = \theta$$

$$\frac{\sin \theta}{7.9} = \frac{\sin 30^\circ}{6.2}$$

$$\sin \theta = 0.6371$$

$$\theta = 39.6^\circ, 140.4^\circ$$

$$\text{Difference} = 30^\circ$$

The n th term of a sequence is

$$T_n = \frac{46n}{2n-1}$$

Work out the largest value of n for which

$$T_n > 23.5$$

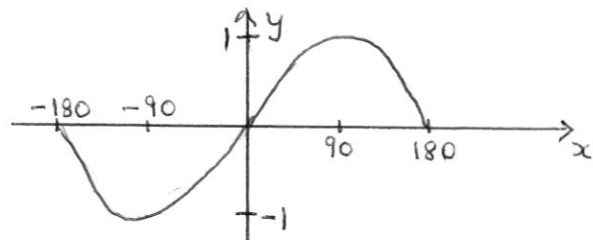
$$\frac{46n}{2n-1} > 23.5 \quad n \geq 1$$

$$\Rightarrow 46n > 47n - 23.5$$

$$\Rightarrow 23.5 > n$$

$$\Rightarrow \underline{n \leq 23}$$

Sketch $y = \sin x$ with $-180^\circ \leq x \leq 180^\circ$



Solve $8x^2+4x+3 = 16x^2+5x+6$

$$(2^3)x^2+4x+3 = (2^4)x^2+5x+6$$

$$3x^2+12x+9 = 4x^2+20x+24$$

$$0 = x^2+8x+15$$

$$0 = (x+3)(x+5)$$

$$\underline{x = -3, -5}$$