Notes:

THE QUADRATIC FORMULA

SOLVE $x^2+2x-3=0$

1) WRITE DOWN COEFFICIENTS

$a=1$, $b=2$, $c=-3$

2) USE THE QUADRATIC FORMULA

$$x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$$

$$= \frac{-2 \pm \sqrt{2^2-4\times1\times(-3)}}{2\times1}$$

$$= \frac{-2 \pm \sqrt{16}}{2}$$

$$= -1 \pm 2$$

$= -3$ AND $+1$

PROPORTION

SOLVE D PROPORTIONAL TO t^2 WHERE $D=1$ WHEN $t=2$

1) WRITE DOWN PROPORTIONAL "MATHEMATICALLY"

$D \propto t^2$

2) CHANGE $\propto \rightarrow = k\times$

$D = kt^2$

3) REARRANGE FOR k

$k = D/t^2$

4) USE $D=1$ AND $t=2$ TO FIND k

$k = 1/4$

5) SOLUTION IS

$D = \frac{1}{4}t^2$

SO FOR ANY GIVEN t YOU CAN FIND D NOW.

Comments:

- MUST BE SURE TO FIND BOTH SOLUTIONS VIA THE QUADRATIC FORMULA