1. Find the equation of the line AB, where A is the point (-2.9) and B is (6, -3).

2. Fully expand $(x + 3)(x - 2)^2$.

3. An astronomy group are designing a new logo using moon shapes. The large and small "moons" are mathematically similar. The height of the large moon is 12cm and its area is 72cm². The area of the small moon in 8cm².
   Calculate the height of the small moon.

4. Fully factorise $9a^2 - 36$.

5. Evaluate and simplify $\frac{2}{3}$ of $(\frac{4}{5} + 1\frac{3}{4})$

6. Find the equation of the line below in terms of P and t
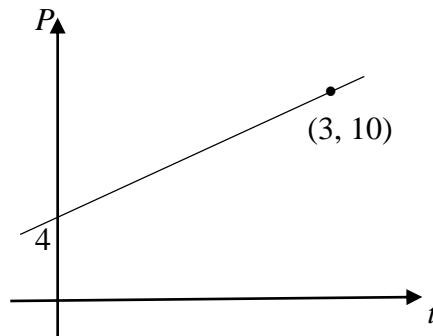
7. Express $\frac{6}{\sqrt{8}}$ with a rational denominator in its simplest form.

8. Solve $2\text{Sin}x^o + 1 = 0$ for $0^o < x < 360^o$

9. A function has equation $f(x) = 5x + 12$. If $f(v) = 2$, find the value of v.

10. Vector $\boldsymbol{u}$ has components $\begin{pmatrix} 3 \\ 1 \\ 0 \end{pmatrix}$ and vector $\boldsymbol{v}$ has components $\begin{pmatrix} 3 \\ 2 \\ 3 \end{pmatrix}$
    Find the magnitude of the resultant vector $|u + v|$. Leave your answer as a surd in its simplest form.