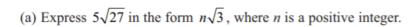
<u>Surds Past Paper Questions Edexcel – None Calculator</u>

1.



(2)

| (b) Rationalise the deno | ominator of $\frac{21}{\sqrt{3}}$ |
|--------------------------|-----------------------------------|
|--------------------------|-----------------------------------|



2.

Rationalise the denominator of $\frac{12}{\sqrt{6}}$

Give your answer in its simplest form.

| |
|------|
| (2) |

Write $(5 - \sqrt{5})^2$ in the form $a + b\sqrt{5}$, where a and b are integers.

4.

$$\frac{\sqrt{3}}{5} + \frac{2}{\sqrt{3}} = a\sqrt{3}$$
, where a is a fraction.

Find the value of *a*.

(a) Rationalise the denominator of $\frac{15}{\sqrt{5}}$

(2)

- $(1 + \sqrt{3})^2$ can be written in the form $a + b\sqrt{3}$, where a and b are integers.
- (b) Work out the value of a and the value of b.

 $a = \underline{\qquad}$ $b = \underline{\qquad}$ (2)

Work out the value of
$$\frac{\sqrt{5}+1}{2} \times \frac{\sqrt{5}-1}{2}$$

Give your answer in its simplest form.

7.

Rationalise the denominator of
$$\frac{(6 - \sqrt{5})(6 + \sqrt{5})}{\sqrt{31}}$$

Give your answer in its simplest form.

Rationalise the denominator of $\frac{(4+\sqrt{2})(4-\sqrt{2})}{\sqrt{7}}$