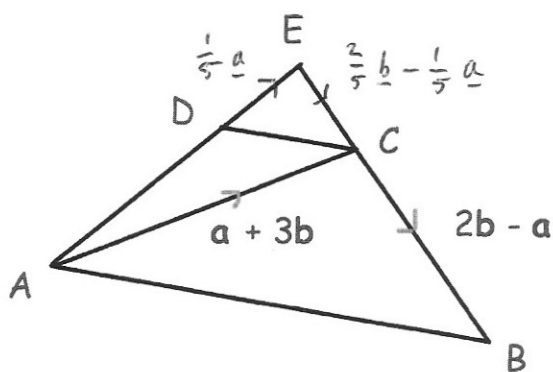




Find the value of $32^{\frac{2}{5}}$

$$\sqrt[5]{32} = 2$$

$$2^2 = 4$$



Find the vector

$$\vec{AB} = \vec{AC} + \vec{CB}$$

$$= \underline{a} + 3\underline{b} + \underline{2b} - \underline{a}$$

$$= 5\underline{b}$$

$$\vec{AC} = \underline{a} + 3\underline{b} \quad \vec{CB} = 2\underline{b} - \underline{a}$$

$$\vec{DE} = \frac{1}{5}\underline{a} \quad \vec{DC} = \vec{DE} + \vec{EC}$$

$$\frac{1}{5}\underline{a} + \frac{2}{5}\underline{b} - \frac{1}{5}\underline{a}$$

$$= \frac{2}{5}\underline{b}$$

$$\vec{EC} = \frac{1}{5}\vec{CB}$$

Prove DC is parallel to AB

$$\vec{AB} = 12.5 \vec{DC} \therefore \text{parallel}$$

Expand and simplify

$$(x+2)(3x-1)^2$$

$$(x+2)(3x-1)(3x-1)$$

$$(x+2)(9x^2 - 6x + 1)$$

$$9x^3 - 6x^2 + x + 18x^2 - 12x + 2$$

$$9x^3 + 12x^2 - 11x + 2$$

Write

$$\frac{4}{\sqrt{5}} - \sqrt{2\frac{2}{9}}$$

$$\frac{4}{\sqrt{5}} - \sqrt{\frac{20}{9}}$$

in the form $k\sqrt{5}$

$$\frac{4}{\sqrt{5}} - \frac{\sqrt{20}}{3}$$

$$\frac{4\sqrt{5}}{5} - \frac{\sqrt{20}}{3}$$

$$\frac{4\sqrt{5}}{5} - \frac{2\sqrt{5}}{3}$$

$$\frac{2}{15}\sqrt{5}$$