

$$2 - \sqrt{5} < 0.$$

$$\begin{aligned} 4) \sqrt{(2-\sqrt{5})^2} + \frac{(4\sqrt{5}-5)\sqrt{5}}{\sqrt{5} \times \sqrt{5}} &= \sqrt{5} - 2 + \frac{20-5\sqrt{5}}{5} \\ &= \sqrt{5} - 2 + \frac{5(4-\sqrt{5})}{5} \\ &= \sqrt{5} - 2 + 4 - \sqrt{5} \\ &= \boxed{2} \text{ natural integer} \quad \text{True} \end{aligned}$$

opp. nb. admit  
the same square

$$\begin{aligned} 5) \left(-\frac{3}{2}x - 4\sqrt{5}\right)^2 &= \left(\frac{3}{2}x + 4\sqrt{5}\right)^2 \\ &= \frac{9}{4}x^2 + 80 + 2\left(\frac{3}{2}x\right)(4\sqrt{5}) \\ &= \frac{9}{4}x^2 + 80 + 12x\sqrt{5}. \end{aligned}$$

false

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2<sup>nd</sup> exercise:

Part A:

$$1) P(x) = x^2 + 6x - 16$$

$$Q(x) = x^2 + 2xa + a^2 - 24$$

Since,  $P(x) \equiv Q(x)$ .

So, coefficient of  $x^2$ :  $1=1$

coeff. of  $x$ :  $6 = 2a$

$$|a = 3|$$

constant:  $a^2 - 24 = -16$

$$a^2 = 8$$

$$a = -3$$

rejected

$$\boxed{a = 3.1}$$

accepted