***Distributive property with squares and cross-products:***

**1.** Remove parenthesis and simplify:

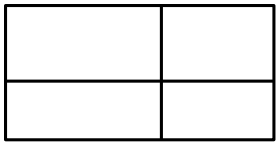
$3 \cdot (x + 1) + x \cdot (x + 1) =$ _____

$x \cdot (2x + 3) + 3 \cdot (2x + 3) =$ _____

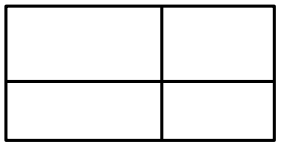
**2.** Remove parenthesis:

| | $x$ | 2 |
|---|---|---|
| $x$ | | |
| 1 | | |

$(x + 1)(x + 2) =$ _____



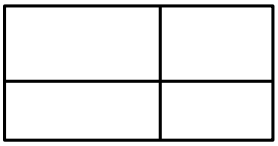
$(x + 3) \cdot (2x + 5) =$ _____



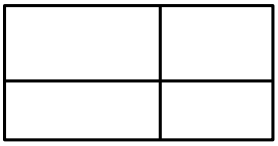
$(x - 3) \cdot (2x + 5) =$ _____



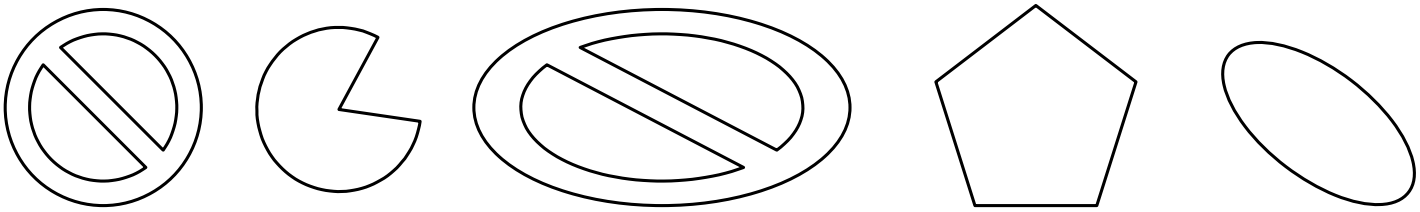
$(3 + x)(4x + a) =$ _____



$(3 + x)(4x - a) =$ _____



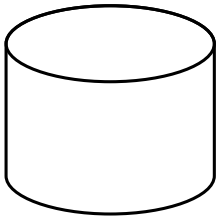
**3.** Find which shapes have lines of symmetry and how many:



**4**. Solve the equations:

a). $5 + \boldsymbol{x} = 1$ b). $|5 + x| = 1$ c). $\dfrac{1}{1-\dfrac{1}{x}} = 3$

**5.** Analyze symmetries of 3D shapes: planes of symmetry, rotational axes



**6**. Use properties of a rhombus to find point $\boldsymbol{C} \in [\boldsymbol{AB}]$ such that $|\boldsymbol{AC}| = |\boldsymbol{BC}|$.

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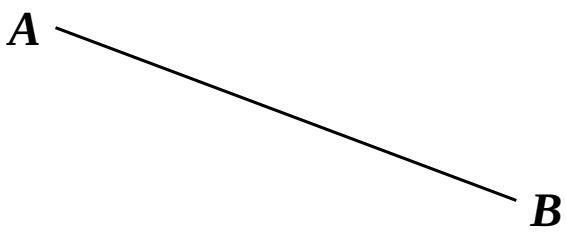


**7**. Find the middle of the line segment $[\boldsymbol{PQ}]$.

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