1. **Check the boxes** to complete each phrase. Provide a reason **why** in each case.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **All** | **Some** | **No** | **Statement…** | **Why?** |
|  |  |  | …squares are rectangles. |  |
|  |  |  | …squares are parallelograms. |  |
|  |  |  | …rectangles are kites. |  |
|  |  |  | …rectangles are rhombuses. |  |
|  |  |  | …kites are rhombuses. |  |
|  |  |  | …rectangles are parallelograms. |  |
|  |  |  | …rectangles are squares. |  |
|  |  |  | …parallelograms are kites. |  |

2. Use the  menu from the Insert tab, can you **construct these quadrilaterals?**If not, explain why.

(a) both a rectangle and a rhombus (b) both a parallelogram and a kite

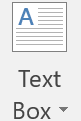
|  |  |
| --- | --- |
|  |  |

(c) a rectangle that is not a rhombus (d) a kite that is not a parallelogram

|  |  |
| --- | --- |
|  |  |

(e) a trapezium and not a kite (f) not a rectangle and not a kite

|  |  |
| --- | --- |
|  |  |

4. Using the  and  tool, draw a **Venn diagram** to show how these sets relate.

(a) Squares and rectangles (b) Parallelograms, rhombuses, and squares

|  |  |
| --- | --- |
|  |  |

(c) Trapezia, kites, squares and parallelograms (d) Rhombuses, kites and rectangles

|  |  |
| --- | --- |
|  |  |