6 The annual salaries, in thousands of dollars, for 11 employees at each of two companies *A* and *B* are shown below.

| Company A | | | | | | | | | | | |
|-----------|----|----|----|----|----|----|----|----|----|----|----|
| Company B | 26 | 47 | 30 | 52 | 41 | 38 | 35 | 42 | 49 | 31 | 42 |

(a) Represent the data by drawing a back-to-back stem-and-leaf diagram with company A on the left-hand side of the diagram. [4]

| (b) | Find the median and the interquartile range of the salaries of the employees in company A . | | | | | | | | | | |
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| A n | ew employee joins company B . The mean salary of the 12 employees is now \$38 500. | | | | | | | | | | |
| (c) | Find the salary of the new employee. | [3] | | | | | | | | | |
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