Quartiles and interquartile range

Name:

Find the median, lower and upper quartiles and the interquartile ranges of these **(odd)** data sets:

a) 2, 3, 5, 9, 11, 12, 15

| Median: **9** | LQ: **3** | UQ: **12** | Interquartile range: **9** |

b) 2, 6, 8, 13, 15, 18, 21, 23, 25, 29, 33

| Median: **18** | LQ: **8** | UQ: **25** | Interquartile range: **17** |

c) 3, 3, 5, 7, 7, 9, 9, 10, 10, 12, 12, 14, 15, 17, 21

| Median: **10** | LQ: **7** | UQ: **14** | Interquartile range: **7** |

d) 6, 7, 11, 14, 19, 21, 27

| Median: **14** | LQ: **7** | UQ: **21** | Interquartile range: **14** |

e) 7, 9, 2, 15, 21, 6, 3

| Order: **2, 3, 6, 7, 9, 15, 21** |

| Median: **7** | LQ: **3** | UQ: **15** | Interquartile range: **12** |

f) 5, 8, 1, 0, 13, 17, 6, 9, 10, 5, 4

| Order: **0, 1, 4, 5, 5, 6, 8, 9, 10, 13, 17** |

| Median: **6** | LQ: **4** | UQ: **10** | Interquartile range: **6** |

Find the median, lower and upper quartiles and the interquartile ranges of these **(even)** data sets:

a) 1, 4, 5, 5, 8, 9, 9, 11, 12, 18

| Median: **8.5** | LQ: **5** | UQ: **11** | Interquartile range: **6** |

b) 2, 9, 10, 12, 12, 15, 18, 19, 23, 25, 26, 31, 35, 39

| Median: **18.5** | LQ: **12** | UQ: **26** | Interquartile range: **14** |

c) 3, 6, 8, 10, 14, 18, 24, 30

| Median: **12** | LQ: **7** | UQ: **21** | Interquartile range: **14** |

d) 2, 7, 10, 13, 24, 25, 31, 33, 40, 44, 51, 53, 60, 62

| Median: **32** | LQ: **13** | UQ: **51** | Interquartile range: **38** |

e) 1, 6, 15, 9, 18, 26, 3, 18, 11, 7

| Order: **1, 3, 6, 7, 9, 11, 15, 18, 18, 26** |

| Median: **10** | LQ: **6** | UQ: **18** | Interquartile range: **12** |

f) 62, 54, 40, 37, 43, 19, 26, 64

| Order: **19, 26, 37, 40, 43, 54, 62, 64** |

| Median: **41.5** | LQ: **31.5** | UQ: **58** | Interquartile range: **26.5** |

g) 92, 24, 108, 124, 84, 69, 76, 140, 86, 65, 95, 42

| Order: **24, 42, 65, 69, 76, 84, 86, 92, 95, 108, 124, 140** |

| Median: **85** | LQ: **67** | UQ: **101.5** | Interquartile range: **33.5** |

Exam question:

April has 12 cards with numbers on it as shown.
What is the interquartile range of the numbers April has?

| 5 | 7 | 4 | 6 | 1 | 3 |
| 1 | 8 | 9 | 2 | 4 | 8 |

1, 1, 2, 3, 4, 4, 5, 6, 7, 8, 8, 9

IQR = 7.5 – 2.5 = 5