### 5.4a Homework: Special Angle Relationships

1. Find at least one example of each angle relationship in the diagram. Name the angle pairs below, and highlight the pairs of angles in the diagram, using a different color for each relationship. .
2. Vertical angles
3. Supplementary angles
4. Complementary angles
5. For each figure of two intersecting lines, calculate the three missing measures, justifying your answer.



|  |  |  |
| --- | --- | --- |
| Angle | Measure of angle | Justification |
| $$∠CEB$$ |  |  |
| $$∠DEA$$ |  |  |
| $$∠BED$$ |  |  |

1. For the figure formed by three intersecting lines, calculate the four missing measures, justifying your answer.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Angle** | $$∠AEF$$ | $$∠AEC$$ | $$∠AED$$ | $$∠DEG$$ | $$∠CEB$$ | $$∠FEG$$ |
| **Measure** | $$52°$$ |  |  |  |  |  |
| **Justification** | Vertical to $∠GEB$ |  |  |  |  |  |