

Practice Worksheet 1.5A – Angle Bisectors

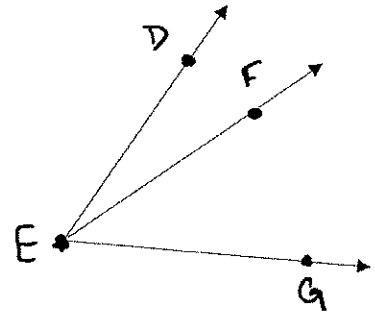
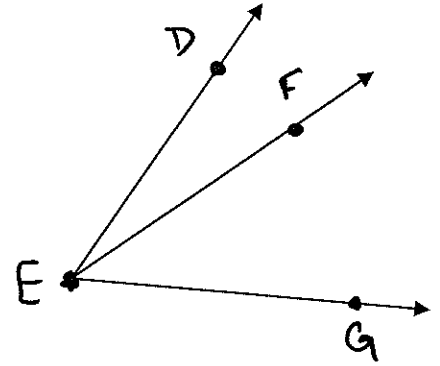
Geometry Homework

For # 1-5, \overline{EF} bisects $\angle DEG$. (The diagram is not drawn to scale.)

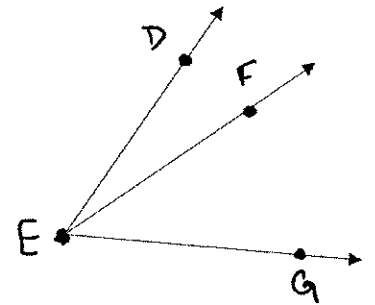
1. If $m\angle DEG = 88^\circ$, find $m\angle FEG =$ _____

2. If $m\angle FED = 27^\circ$, find $m\angle GED =$ _____

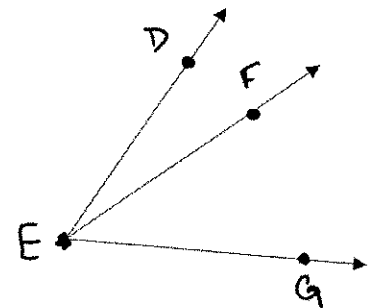
3. If $m\angle DEF = 3x + 1$ and $m\angle DEG = 5x + 19$, find the value of x .



4. If $m\angle DEF = 5x - 3$ and $m\angle FEG = 2x + 15$, find the value of x .

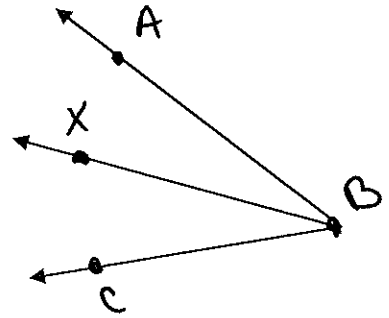


5. If $m\angle FEG = 6x - 7$ and $m\angle FED = 2x + 41$, find the $m\angle DEG$. (solve for x first!)

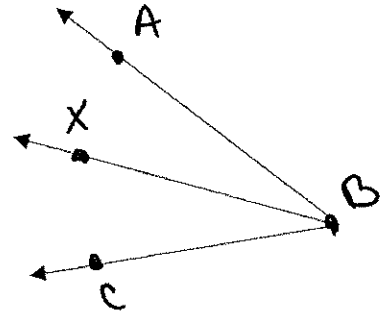


For #6-9, \overline{BX} is the BISECTOR of $\angle ABC$. (Diagrams are not drawn to scale)

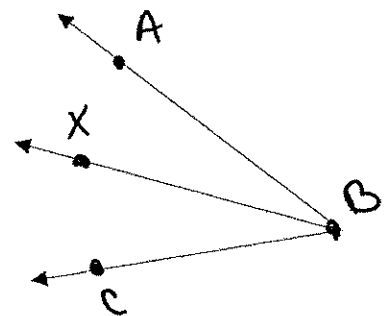
6. If $m\angle ABX = 5x$ and $m\angle XBC = 3x + 10$, find the $m\angle ABC$. (Solve for x first!)



7. If $m\angle ABC = 4x - 12$ and $m\angle ABX = 24$, find the value of x .



8. If $m\angle ABC = 4x + 16$ and $m\angle CBX = 3x + 6$, find the value of x .



9. If $m\angle ABC = 5x + 18$ and $m\angle CBX = 2x + 12$, find the value of x , and the $m\angle ABC$.

