**Angle Relationships Day 3 HW**

**Find the value of the variable and find the m<PQR. Justify steps!**

1.

2. In the figure, $\vec{EA} and \vec{EB}$ are opposite rays.

 $\vec{EF}$ bisects $<AEC$, $<AEF=4\left(x^{2}-x\right)$ and $<FEC=35°$.

Find the possible values for x. Make sure to check your work and justify your steps.

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3. $m<11=2x^{2}-7x+95, m<12=6x^{2}-3x+88$. Find the possible value(s) for x. Make sure to justify your steps and check your work.



4. $m<17=10x^{2}-25x, m<18=-4x^{2}+6$. Find the possible value(s) for x. Make sure to justify your steps and check your work.



**Rapid Practice: No justifications!**

5.

 6.





**Decide whether the statement is *true or false*. If the statement if false, reword the statement so it is true.**

7. Two angles are complementary if the sum of their measures is 180°

8. Two angles are supplementary if the sum of their measures is 180°

9. Two angles are adjacent angles if they share a common vertex.

**Determine whether the angles are complementary, supplementary or neither.**



10. 11. 12.

**Find the measure of the complement of the given angle.**



13. 14. 15.

**Find the measure of the supplement of the given angle.**



16. 17. 18.

**Find the measure of EACH numbered angle.**



19. 20. 21.



22. 23. 24.