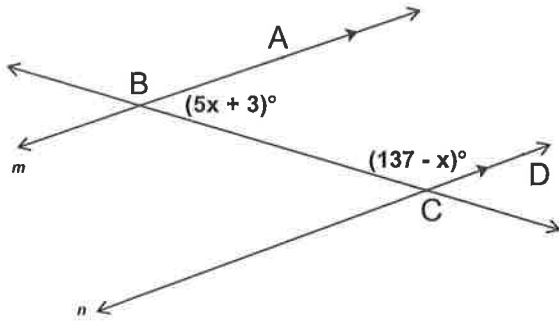


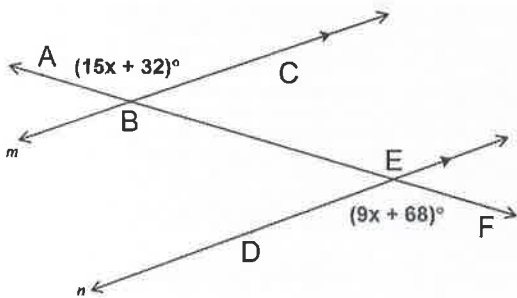


2. Please solve for x by completing the two column proof.



Statements	Reasons
1) $m\angle ABC = (5x+3)^\circ$ $m\angle BCD = (137-x)^\circ$ <u>m//n</u>	1) <u>Given</u>
2) $5x+3+137-x=180$	2) <u>consecutive interior angles theorem</u>
3) $4x+140=180$ <u>-140 -140</u>	3) <u>Combine like Terms</u>
4) $\frac{4x}{4} = \frac{40}{4}$	4) <u>Subtraction prop</u>
5) $x=10$	5) <u>division prop</u>

3. Please find  $m\angle ABC$  by completing the two column proof.



Statements	Reasons
1) $m\angle ABC = (15x+32)^\circ$ $m\angle DEF = (9x+68)^\circ$ <u>m//n</u>	1) <u>Given</u>
2) $15x+32 = 9x + 68$	2) <u>alternate exterior angles theorem</u>
3) $6x+32 = 68$ <u>-32 -32</u>	3) <u>Subtraction prop.</u>
4) $\frac{6x}{6} = \frac{36}{6}$	4) <u>Subtraction prop</u>
5) $x = 6$	5) <u>Division Prop</u>
6) $m\angle ABC = 15(6)+32$	6) <u>Substitution Prop</u>
7) $m\angle ABC = 122^\circ$	7) <u>Simplification</u>