Solution for Weekly Proof 12

Answer: There are eight combinations of three numbers that multiply together to make 36: 36x1x1, 18x2x1, 3x12x1, 9x4x1, 6x6x1, 2x2x9, 6x2x3, 3x3x4. Since the man needed more information after discovering the ages added up to the bus number, more than one of these combinations must equal the same number (6+6+1=13 and 2+2+9=13). The third clue enabled him to answer because she said she had a youngest child. If the ages were 2, 2, and 9, she'd have youngest children (plural) so it makes sense that the answer is 1, 6, and 6.