

MORE ON PATTERNS & ALGEBRAIC EXPRESSIONS

Convention Time

At a convention, each attendee gets a name badge. There are 3 badge holders left over from the previous convention and new packages of badge holders are opened as needed. Badge holders come in packages of 8.

- (a) Find an expression telling how many badge holders are available if n packages are opened. Explain the expression.
- (b) If 20 people show up to the convention, how many packages of badge holders will be opened?
- (c) Repeat (b) for a larger crowd (say 100 people). How about N people?
- (d) Whatever method you tried in part (c) (using algebra or math reasoning), try it the other way to verify you will get the same answer.