## Unit 9 Open Response Assessment

## Factor Patterns

(1) Explore what happens to the product when you double a factor. For example, multiply $4 \times 5$. Then double the 4 and multiply $8 \times 5$. Then begin with $4 \times 5$ again, double the 5 , and multiply $4 \times 10$. Show your work.
(2) Try doubling one of the factors in other multiplication facts. Show your work. Describe a pattern that you see when you double a factor.
(3) Based on your work with doubling factors, predict what will happen when you triple a factor. Explain how you would convince someone that your prediction will always work for any multiplication fact.

