

## Algebra Essentials and Applications Internet Activity

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### ME1 Poly Ops Investigations

1. What is the total cost for a Model N90 balloon according to the information?  
(Use the figure given near the bottom of the screen.)
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2. If the company produces  $x$  Model N90 balloons each month, what will their monthly variable costs be?
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There are also *fixed costs* in doing business: costs for the buildings, utilities, employee salaries, etc. The costs are fixed because they do not depend on how many balloons are made, but will remain the same from month to month. Suppose that Cameron Balloons's monthly fixed costs total £204,480.

3. To find Cameron Balloons total monthly cost function,  $C$ , add the fixed costs given above to your answer to Exercise 2:  $C = \text{variable costs} + \text{fixed costs}$ . What is the cost function?
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4. Suppose that Cameron Balloons sells each Model N90 balloon for £45,000. To find the *revenue function*,  $R$ , multiply the number of balloons sold each month by the price per balloon. What is the revenue function?
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5. To find the *profit function*,  $P$ , subtract the cost from the revenue:  $P = R - C$ . What is the profit function?
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