

Y3 – Spring – Block 1 – Step 11 – How many ways? Answers

Question	Answer																										
1	<p>a)</p> <table border="1"> <thead> <tr> <th>Ice cream flavour</th> <th>Topping</th> </tr> </thead> <tbody> <tr><td>chocolate</td><td>nuts</td></tr> <tr><td>chocolate</td><td>choc chips</td></tr> <tr><td>chocolate</td><td>sprinkles</td></tr> <tr><td>vanilla</td><td>nuts</td></tr> <tr><td>vanilla</td><td>choc chips</td></tr> <tr><td>vanilla</td><td>sprinkles</td></tr> <tr><td>mint</td><td>nuts</td></tr> <tr><td>mint</td><td>choc chips</td></tr> <tr><td>mint</td><td>sprinkles</td></tr> <tr><td>strawberry</td><td>nuts</td></tr> <tr><td>strawberry</td><td>choc chips</td></tr> <tr><td>strawberry</td><td>sprinkles</td></tr> </tbody> </table> <p>b) Keep the flavour of ice cream the same and go through all the toppings. Repeat for each flavour of ice cream.</p>	Ice cream flavour	Topping	chocolate	nuts	chocolate	choc chips	chocolate	sprinkles	vanilla	nuts	vanilla	choc chips	vanilla	sprinkles	mint	nuts	mint	choc chips	mint	sprinkles	strawberry	nuts	strawberry	choc chips	strawberry	sprinkles
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2	<p>a)</p> <table border="1"> <thead> <tr> <th>Mittens</th> <th>Scarfs</th> </tr> </thead> <tbody> <tr><td>A</td><td>1</td></tr> <tr><td>A</td><td>2</td></tr> <tr><td>B</td><td>1</td></tr> <tr><td>B</td><td>2</td></tr> <tr><td>C</td><td>1</td></tr> <tr><td>C</td><td>2</td></tr> <tr><td>D</td><td>1</td></tr> <tr><td>D</td><td>2</td></tr> <tr><td>E</td><td>1</td></tr> <tr><td>E</td><td>2</td></tr> </tbody> </table> <p>b) 10 c) Work systematically, putting each scarf with one pair of gloves before moving on to the next pair of gloves. d) $5 \times 2 = 10$</p>	Mittens	Scarfs	A	1	A	2	B	1	B	2	C	1	C	2	D	1	D	2	E	1	E	2				
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A	1																										
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E	2																										
3	<p>No $4 \times 4 = 16$ There are 16 combinations.</p>																										
4	<p>a) $5 \times 4 = 20$ b) $7 \times 4 = 28$</p>																										
5	<p>a) 18 b) 54</p>																										
6	<p>8</p>																										