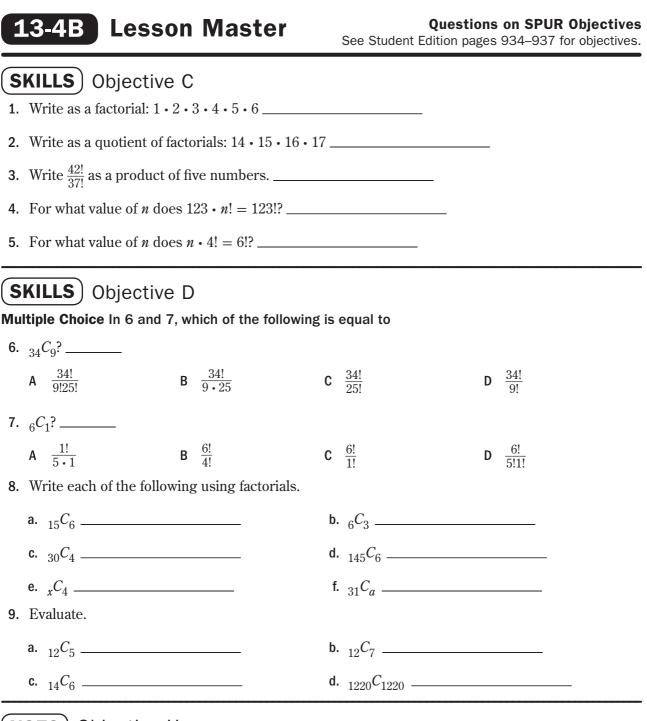
## Name



## **USES**) Objective H

- **10. a.** How many permutations are there of the letters in the word "PEAT"? List those that are also words in English.
  - **b.** How many three-letter permutations are there of the letters in the word "PEAT"? List those that are also words in English.
- **11**. Jennie has 12 close friends, but her mother will allow her to invite only 6 of them for a dinner party. In how many different ways can she make up her guest list? \_\_\_\_\_\_

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12. Paul wants to take some DVDs on a bus trip to Washington, D.C. His carrying case holds 16 DVDs. In how many ways can he choose the 16 DVDs from his collection of 74 DVDs?	
<b>13</b> . Consider 10 points in a plane such that no three are collinear.	
<b>a</b> . How many segments have these points as endpoints?	
<b>b</b> . How many triangles have these points as vertices?	
<b>c.</b> Look at your answers to Parts a and b. Since each triangle has thre why are there not three times as many segments as there are triang	
<ul><li>14. Home Harvest Nursery carries 88 varieties of flowers: 12 varieties of ground cover and 31 varieties of vegetables. The company is planning a newspaper advertisement.</li></ul>	
<b>a.</b> Page 1 of the advertisement will show 8 different types of flowers. In how many different ways can the flowers be chosen?	
<b>b.</b> Page 2 will show 4 different types of ground cover. In how many different ways can the ground cover be chosen?	
<b>c.</b> Page 3 will show vegetables. How many different displays of at least one type of vegetable are possible?	
In 15 and 16, use this information: Mason has a collection of 16 compact discs, five of which are by the group <i>MATH-MANIA</i> .	t
<b>15.</b> How many different ways can Mason choose 6 CDs from all the discs in his collection?	
<b>16.</b> How many mini-collections of 3 CDs could be formed from the <i>MATH-MANIA</i> CDs?	
In 17 and 18, use this information: Julia has a stamp collection with 10 particularly valuable stamps from Portugal and 8 from Spain.	
<b>17</b> . Write an expression to show how many ways she can choose 10 of these valuable stamps.	
18. a. How many possible displays of three stamps can be made up entirely of stamps from Spain?	
<b>b.</b> How many possible displays of 7 stamps can be made up entirely of stamps from Portugal?	f