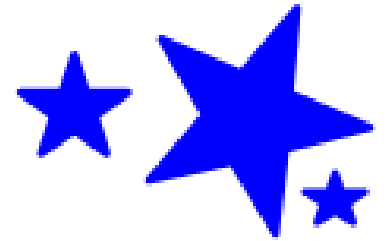


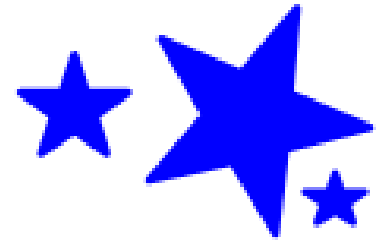
**1 - 6**

**Commutative and  
Associative Properties**

\*\*\* only + and  $\times$



commutative:  $a + b = b + a$   
 $ab = ba$



associative:  $(a+b)+c = a+(b+c)$

$$(ab)c = a(bc)$$

Ex:  $8 \cdot 2 \cdot 3 \cdot 5$

$$(8 \cdot 3) \cdot (2 \cdot 5)$$

$$24 \cdot 10$$

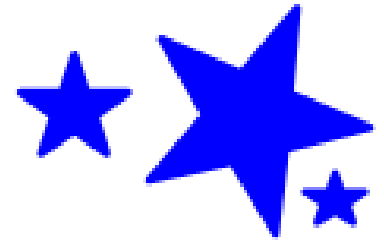
$$\boxed{240}$$

Ex:  $2 \cdot 8 \cdot 5 \cdot 7$



$$10 \cdot 56$$

$$\boxed{560}$$

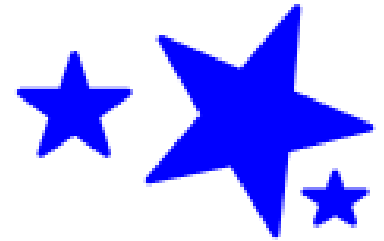


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Ex:  $3c + 5(2 + c)$

$3c + 10 + 5c$

$8c + 10$

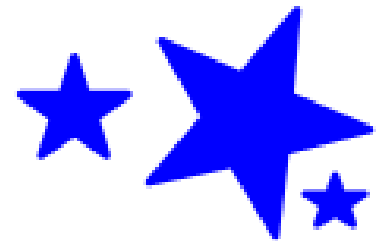


Ex:  $8(2b + 4) + 7b$

$16b + 32 + 7b$

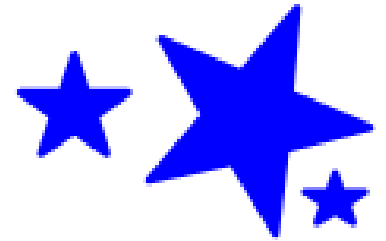
$23b + 32$

Ex:  $4(a + b) + 2(a + 2b)$



$$\underline{4a + 4b} + \underline{2a + 4b}$$

$$6a + 8b$$



Homework:

p. 34 #16 - 40 even