1. Each of these elements (*a*) is a zero-divisor in . Show how to use a factorization of *a* and *n* by (*a,n*) to show the product of 0.

1. 
2. 
3. 
4. 

2. Each of these elements (*a*) is a unit in . Find *u* and *v* such that . Use *u* and *v* to find the multiplicative inverse of *a*.

1. 
2. 
3. 
4. 

3. Prove that if  then *a* is a zero-divisor in .

4. Prove that if  then *a* is a unit in .

3.1 # 1

1. Each of these elements (*a*) is a zero-divisor in . Show how to use a factorization of *a* and *n* by (*a,n*) to show the product of 0.

1. 
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1. 
2. 
3. 
4. 

3. Prove that if  then *a* is a zero-divisor in .

4. Prove that if  then *a* is a unit in .

3.1 # 1, 2