1. results
   a. experiment 1, 3 reducers
      i. first partition first 5 lines
         1.
         ```
         0001MeE7B7JPCWj Hslz3NRPzxugmQlH9s1UW1ku3jPc79T73HdtFxGJ
         0001lcFyJCuKI4l vRlpXC3AuprUAMabMLgsIeSZxURRHKS0mi9VprSX
         00023bbrDdDCyzn Un47nRNdoCLyDoh9irbhbRDuxIRgxB4HctA7Wubd
         0006rvR9W2eYJL5 87fUZNdKD6C12lFoDagEcrJxZXce4sPTn4X57Qas
         0008P8NCnnLVhJh qmRAduMXpSRodW8PCiPDtCqc5oJqLCuJaix9YFLp
         ```
      ii. first partition last 5 lines
         1.
         ```
         uBzMclnb4BrIgSE xT4xOrljPtE6dQ1sMDxkXkRh61SDg19plXmSsBL7
         uBzOnfEMTEscUym eK2Hzh7YvRTZ61AnYGblttfiyMp5geeSQiHSIKIb
         uBzT9bhVvzS5eyR ztZrqo8M9DlUgnTt7mnljR6Kry9FYIQPcYdd64sH
         uBzUHxyW2v0ODya xYzCL7mClB5eGDgKOd6VTE4ZYUIbbGeJ3EvMOCRN
         uBzXtBJCW0vWEXN YLfTYda460OgzLfco8W2PN9Pz4MLr2Lv5vOKo0cB
         ```
      iii. second partition first 5 lines
         1.
         ```
         uBzd5DWxW3fLcvK IQNgsWelS7EZq12UqdFdYXkrQuXQFXur2UKhqzUa
         uBzlWfMyOlBnOWB FZ9S7ijdUz6MOkgx28EKyhp3E9grLcs9X99SvTX5
         uBznkyQreR9j9I1 2jDrHRBW1fvVq9S78AdfCuqUxURdFPGE3kpnaT7I
         uBzxrzv6N8VajVt 54bVXNGNsMjU7q1bl9Sly4cIVVM02X85d4SmdOFb
         uC00URcQUgvjexk ZlQuQotvmFalmmU5gvfTzAtddG5oUWGEfeNJDWj8
         ```
      iv. second partition last 5 lines
         1.
         ```
         y7Wea8amVVXljbK xNP9frlbn85fdCYjhareos2fSl7dZUzoxGvIBddI
         y7WljZn3i3VhyXM zOBd2UnM7Phq9iRxNsbpOsOJBT02jUSbetnsSOvQ
         y7WmppVGH62IRO0 gJqbCaT2P7Om83LSRCrnKcKYU3u3Wlox8rzPkes6
         y7WqbDUroIY5sVV lNiqp5qQ1u9EerIUV23WN7qFbbH6Hjo57FfDes4D
         y7WqkS7SnC3vE6X o4EzvsIPxXUfNZngcxmkNHV7LDhUYWJ4EDpVqsPf
         ```
      v. third partition first 5 lines
         1.
         ```
         y7WvD1SJaukLSY8 T6Ly6XHSx1FtOg1v5oHsSsMOJPxqlXjxOFRiVk09
         y7Wx9RMaxR1cDcj b6ymMuQ7PARKrS7Up9RGVBrObVuFiahUXSsOyyZY
         y7X4bv5HHAT4E1i PxtGaitDOdx8FXff6CIgyl78QR8Rul2b9VuE7UhC
         y7XAVYtScixpqaY 8DMRPaulg9yV73VV8sXRxeFOYkuUMOFimdVu5O5G
         y7XAsgrMP2XphtF W2rTP6bEPbAvxmYm9adb5tKJeBIVUQ13Ds0f6cD4
         ```
      vi. third partition last 5 lines
         1.
         ```
         zzzlsNEhLA6XXr4 358YpGifuI8Wvb0f917CLkUTmcIMXn9UFpWFAiNm
         zzznxiU8di17hBk zMz4cONqHlhp8PMnHaLtU7VB2pDlrS5Oo5kKYbip
         zzzp2osLN7Didmk NA759V0qkWGK2Nfd8EvPc5FL9FgAIUbIX52JR4o3
         zzzuoUL6N4qMAFu JzmJyyjISlKaSWPi5ObPcZoT9hEtHg3VDYQPTIco
         zzzz0yxLW36DFE3 U32iJXn1rJyHPFOCvXEObCDsLT2pgv1IdMqBaeFI
         ```
   b. experiment 2, 3 reducers
      i. first partition first 5 lines

```
002CGxZhgFpf49N  5MVBj8BvxZ0FehM35RlG6ZdL6D0TVeps4smgONDS
003mP2h9e7AyoAe  6v7iQlrNBhxuLBTdp29klelAMqx6Ue9UbmjUhC6p
006RUBroI7rpApL  ih18mB1bcyyra1L3z3eIc4yY5cStC9i5fCBXqVNB
00872Qdhzkuu0Mo  gJv88FkDVPAFNgYA4JCbFRijAQG0vf96Y1JPtic8
00AefQkuOBTpGTN  RQ4ePIfSIkaN4cVIbMW9eUpd70DXV2Aj5LbLsLLV
```

    1.

 ii. first partition last 5 lines

```
zzqB7va7D8h42Ex  O8YmaCl9OU838QxPB3eby9ApP0GvNEPTnltCjvIf
zzspLP28VOduotr  24od7e460L72E7a4W9pnzGpmvbzuajeZR8Vj6UDP
zzxZrATXhf7FU0B  suICYFi1sUFqLbENYAx8aGzZd4A3xtcPkGm3nJvW
zzxuUEUGmDrfLNl  DZEWS7p6Rl0Fq72rVbP1HIxr6h7mhEbNJzi2nU8Q
zzzLyRRmSPdcdgF  ql7TSuKJy216BRbO7R7n5M4Mn3FC6TIcijqtycTp
```

    1.

 iii. second partition first 5 lines

```
000dJJ1TKvD9JY3  qyEIVmbqdmMQi27871R6OncsDoJRAMxp0MjfEGtW
001SZ6pXMRQSVxz  vm3eElvShsy3lkQ6MaiP7UejGmq1Rsu2dQl2VdmM
004F5uBm6kOLGNO  mXJ9JR9JJdigC6pPSMycjRWfApiTut85aprQBeTK
005kQgIUadn1LVf  xiCaX6MS5rzasWchpHV7obtzc3jLnWM8nFljbLaB
006vIna7xHPIo0n  xlsEfcRhv4BAOg8Ym20yQUhxgb7xvnoSrJgK50vH
```

    1.

 iv. second partition last 5 lines

```
zzt1VC1Mhqikfai  D60hN3JzG9nDyDCTcGimKMzE9vdMSuIdjdj8ACIF
zztnQBdW55iK9i2  U6s89PtSYrx96YfmDe643Kq0GNeT7hIXQ77ELoCp
zzv2rbSSmsHoUdV  2h4Tiz80WSNUKNTthAtn7AF7I3mIGiebmUhWO5la
zzv61egIoJMSJxr  nS9OjjxL9FekkKdHXhjRvdibIZSPYqQ7mAVRugqE
zzyzcFdkM8StXh1  Vg2N3sG7kNcvNMu693xGZTV5BMNPi5vLUTCyyN8P
```

    1.

 v. third partition first 5 lines

```
000ckhLmtS7AeAE  4D2NVCzvxJxrXCeX0NIXDrVx2gxNQp3knjt4rVzv
002DLQWKhfVtQPz  ItqHFG2F0Het6RZUFODMRj2s9MYhXJFgj3Qu9Oqc
003kpn0EVZ87c6P  MdT2kMCgkoxGsmUsd0T0aiaYyR7cgVHJiX1oOSX5
004RAu0FEX0dHVq  2BEmKo5vpuiGfcdnT5gt0e5aV3bB7VIx4KaQvy18
0078Z6P9xiTXegV  ri3hj4V0W4lcqfERbOeAtLfnia1NRxvnXEXhX15r
```

    1.

 vi. third partition last 5 lines

```
zzuY7ZRialXU83K  p1HkN9qVzJysUvn2I71VgMC2BOIgZv28WX6fy8Bt
zzvSgMJd74UxzzT  HarAmHL70H8gLi41mEmpYudQCi9D0YWU7onWQ5EH
zzvl16DbRBlRFkM  TAPWXs5UrhB9ZzO0hejczPEareoxrDWYUq0W203l
zzvxfWNSDRMgdmY  tF0mgSnjo5VluChUVSXyzSKlbs01YooARQCxxU7k
zzxe4LDV1mQeUWp  2q5PF7MzFMCVkSz1EGkWYngpWtOBLkUH4TeXZzDC
```

    1.

2. strategy
    a. my strategy was to best mimic the "TotalOrderPatitioner" as best I could
3. arguments
    a. no arguments were needed