

High School:

Fall Pumpkins

1. One pack of 20 pumpkin seeds cost \$6.00. Only 80% of the seeds will result in mature pumpkins to be sold. Each mature pumpkin is sold for \$10.00 at the farmer's market. What is the estimated (no guarantees in farming and weather or other issues can result in loss of produce) profit from this pack of pumpkin seeds? Justify your answer.

2. Bill and Heather are carving pumpkins for their community. Read the facts about each person's ability.

- Bill can clean out (hollow out) a pumpkin in 15 minutes and it takes him another 15 minutes to carve a face on the pumpkin
- Heather can clean out (hollow out) a pumpkin in 20 minutes and it takes her 10 minutes to carve a face onto the pumpkin.

Write a recommendation for how Bill and Heather should collaborate to complete their work. What is the minimum amount of time they need to carve 35 pumpkins? Justify your answer.

3. The Russell Farms Pumpkin patch sells small pumpkins for \$3 and large pumpkins for \$5. Jessica purchased 18 pumpkins (mixed between large and small). The total cost was less than \$80. How many small pumpkins did she purchase? Justify your answer.
