

Estimating Quotients

How can you estimate quotients?

Jorge is putting shells into 6 boxes. He wants to put about the same number in each box. About how many shells could Jorge put in each box?

Choose an Operation Divide to separate an amount into equal groups.



One Way

Use rounding to estimate $258 \div 6$.

Remember that you can round to the nearest tens or hundreds.

Round 258 to 300.

$$300 \div 6 = 50$$

50 shells is an overestimate, since 258 was rounded up to 300.

Another Way

Use compatible numbers.

Replace 258 with 240.

240 and 6 are compatible, since $24 \div 6 = 4$. You can use mental math to find $240 \div 6 = 40$.

40 shells is an underestimate, since 258 was rounded down to 240.

Jorge should put between 40 and 50 shells in each box.

- How could you find exactly how many shells Jorge could put in each box?
- How do you know you can estimate to solve this problem?
- Would it make sense to round 258 to 250?
- Will the number of shells be closer to 40 or to 50? How do you know?