A ROUNDING

A.1 ROUNDING TO THE NEAREST TEN

Ex 1: Round the number 263 to the nearest ten.

$$263 \approx \boxed{260}$$

Answer:

263 Find the digit in the tens place: 6
263 Look at the digit to the right: 3
Since 3 is less than 5, round down: 6 stays the same.
260 Replace all digits to the right with zeros.

$$263 \approx 260$$

Ex 2: Round the number 389 to the nearest ten.

$$389 \approx \boxed{390}$$

Answer:

389 Find the digit in the tens place: 8
389 Look at the digit to the right: 9
Since 9 is greater than or equal to 5, round up: $8 + 1 = 9$
390 Replace all digits to the right with zeros.

$$389 \approx 390$$

Ex 3: Round the number 2 342 to the nearest ten.

$$2\,342 \approx \boxed{2340}$$

Answer:

2 342 Find the digit in the tens place: 4
2 342 Look at the digit to the right: 2
Since 2 is less than 5, round down: 4 stays the same.
2 340 Replace all digits to the right with zeros.

$$2\,342 \approx 2\,340$$

Ex 4: Round the number 6 779 to the nearest ten.

$$6\,779 \approx \boxed{6780}$$

Answer:

6 779 Find the digit in the tens place: 7
6 779 Look at the digit to the right: 9
Since 9 is greater than or equal to 5, round up: $7 + 1 = 8$
6 780 Replace all digits to the right with zeros.

$$6\,779 \approx 6\,780$$

A.2 ROUNDING TO THE NEAREST HUNDRED

Ex 5: Round the number 365 to the nearest hundred.

$$365 \approx \boxed{400}$$

Answer:

365 Find the digit in the hundreds place: 3
365 Look at the digit to the right: 6
Since 6 is greater than 5, round up by adding 1: $3 + 1 = 4$
400 Replace all digits to the right with zeros.

$$365 \approx 400$$

Ex 6: Round the number 2 032 to the nearest hundred.

$$2\,032 \approx \boxed{2000}$$

Answer:

2032 Find the digit in the hundreds place: 0
2032 Look at the digit to the right: 3
Since 3 is less than 5, round down: 0 stays the same.
2000 Replace all digits to the right with zeros.

$$2\,032 \approx 2\,000$$

Ex 7: Round the number 35 695 to the nearest hundred.

$$35\,695 \approx \boxed{35700}$$

Answer:

35695 Find the digit in the hundreds place: 6
35695 Look at the digit to the right: 9
Since 9 is greater than 5, add 1: $6 + 1 = 7$.
35700 Replace all digits to the right with zeros.

$$35\,695 \approx 35\,700$$

Ex 8: Round the number 40 239 to the nearest hundred.

$$40\,239 \approx \boxed{40200}$$

Answer:

40239 Find the digit in the hundreds place: 2
402239 Look at the digit to the right: 3
Since 3 is less than 5, round down: 2 stays the same.
40200 Replace all digits to the right with zeros.

$$40\,239 \approx 40\,200$$

A.3 ROUNDING TO THE NEAREST THOUSAND

Ex 9: Round the number 23 100 to the nearest thousand.

$$23\,100 \approx \boxed{23000}$$

Answer:

$23\,100$	Find the digit in the thousands place: 3
$23\,100$	Look at the digit to the right: 1
	Since 1 is less than 5, round down: 3 stays the same.
$23\,000$	Replace all digits to the right with zeros.

$$23\,100 \approx 23\,000$$

Ex 10: Round the number 67 645 to the nearest thousand.

$$67\,645 \approx \boxed{68000}$$

Answer:

$67\,645$	Find the digit in the thousands place: 7
$67\,645$	Look at the digit to the right: 6
	Since 6 is greater than or equal to 5, round up: $7 + 1 = 8$
$68\,000$	Replace all digits to the right with zeros.

$$67645 \approx 68000$$

Ex 11: Round the number 9 200 to the nearest thousand.

$$9\,200 \approx \boxed{9000}$$

Answer:

$9\,200$	Find the digit in the thousands place: 9
$9\,200$	Look at the digit to the right: 2
	Since 2 is less than 5, round down: 9 stays the same.
9000	Replace all digits to the right with zeros.

$$9\,200 \approx 9\,000$$

Ex 12: Round the number 9 999 to the nearest thousand.

$$9\,999 \approx \boxed{10000}$$

Answer:

$9\,999$	Find the digit in the thousands place: 9
$9\,999$	Look at the digit to the right: 9
	Since 9 is greater than or equal to 5, round up: $9 + 1 = 10$
10000	Replace all digits to the right with zeros.

$$9\,999 \approx 10\,000$$