Skill Builder

9 Mental Arithmetic and Estimation with Natural Numbers EVALUATED

1 Add and subtract these in your head using the given strategy.

a. Add using **multiples of ten**: 56 + 64

b. Add by **place value**: 328 + 541

c. Add by using the **opposite change** rule:

$$\begin{array}{r} 192 \\ +\ 659 \end{array}$$

d. Subtract by using the **same change** rule:

$$\begin{array}{r} 723 \\ -\ 293 \end{array}$$

2 Add and subtract these in your head using the given strategy.

a. Add by **place value**: 172 + 326

b. Add by using the **opposite change** rule:

$$\begin{array}{r} 139 \\ +\ 689 \end{array}$$

c. Subtract by using the **same change** rule:

$$\begin{array}{r} 307 \\ -\ 188 \end{array}$$

d. Subtract by **counting up**:

$$\begin{array}{r} 620 \\ -\ 350 \end{array}$$

3 Multiply these in your head using the given strategy.

a. 7 × 31 using the **distributive property**.

b. 4 × 75 using **doubling and halving**.

4 Multiply these in your head using the given strategy.

a. 4 × 62 using the **distributive property**.

b. 24 × 45 using **doubling and halving**.

5 Divide these in your head using the given strategy.

a. 288 ÷ 72 by **simplifying first**.

b. 98 ÷ 7 by **breaking into multiples**.

6 Divide these in your head using the given strategy.

a. 448 ÷ 64 by **simplifying first**.

b. 92 ÷ 4 by **breaking into multiples**.

7 Logan has 1 094 toy building blocks. Noah has only 816 toy building blocks. Estimate how many more building blocks Logan has.

8 Jason wants to buy a used car for $6000. If he is able to save $488 per month, estimate if he will have enough to buy the car in one year.

9 In all, 30 436 people went skiing in February and January. 16 009 went skiing in February. Estimate how many fewer people went skiing in January than in February.

10 A mixture of two chemicals measures 1 034 ml. It contains some of Chemical A and 755 ml of Chemical B. Estimate how much less of Chemical A than Chemical B was in the mixture.