Whole Numbers (3): Approximation and Estimation

A. Fill in the blanks.

(1) 12 465 is _____ when rounded off to the nearest ten.

(2) 30 083 is _____ when rounded off to the nearest ten.

(3) 35 206 is _____ when rounded off to the nearest hundred.

(4) 21 644 is _____ when rounded off to the nearest hundred.

(5) 65 079 is _____ when rounded off to the nearest hundred.

(6) 90 739 is _____ when rounded off to the nearest thousand.

(7) 143 520 is _____ when rounded off to the nearest thousand.

(8) 219 198 is _____ when rounded off to the nearest thousand.

B. Round off each of the following to the nearest $100.

(1) $1248 = _____ (2) $3072 = _____

(3) $5738 = _____ (4) $10 059 = _____

(5) $19 816 = _____ (6) $27 009 = _____

C. Round off each of the following to the nearest $1000.

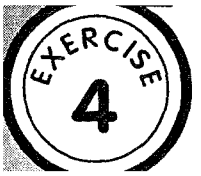
(1) $2431 = _____ (2) $4955 = _____

(3) $17 745 = _____ (4) $33 333 = _____

(5) $401 287 = _____ (6) $592 590 = _____

D. Estimate the value of each of the following.

(1) $1120 + 375$ $\approx 1000 + 400$ $=$	(2) $2592 + 216$ $\approx$ $=$
(3) $3705 + 2274$ $\approx$ $=$	(4) $4098 + 2626$ $\approx$ $=$
(5) $5689 - 366$ $\approx$ $=$	(6) $2736 - 528$ $\approx$ $=$
(7) $9099 - 8909$ $\approx$ $=$	(8) $7814 - 6157$ $\approx$ $=$
(9) 125×64 $\approx 100 \times 60$ $=$	(10) 276×28 $\approx$ $=$
(11) 357×132 $\approx$ $=$	(12) 443×271 $\approx$ $=$
(13) $2174 \div 41$ $\approx 2000 \div 40$ $=$	(14) $2601 \div 26$ $\approx$ $=$
(15) $1748 \div 24$ $\approx$ $=$	(16) $1488 \div 13$ $\approx$ $=$



Whole Numbers (4): Multiplying by Tens, Hundreds or Thousands

Find the value of each of the following.

(1) 347×10 =	(2) 408×20 =
(3) 24×80 =	(4) 93×100 =
(5) 59×300 =	(6) 758×500 =
(7) 236×700 =	(8) 514×1000 =
(9) 707×4000 =	(10) 62×6000 =

Whole Numbers (5): Dividing by Tens, Hundreds or Thousands

Find the value of each of the following.

(1) $590 \div 10$ =	(2) $900 \div 30$ =
(3) $770 \div 70$ =	(4) $2300 \div 100$ =
(5) $3600 \div 400$ =	(6) $7800 \div 600$ =
(7) $45\,000 \div 1000$ =	(8) $75\,000 \div 3000$ =
(9) $30\,000 \div 5000$ =	(10) $84\,000 \div 7000$ =

Whole Numbers (6): Order of Operations

Find the value of each of the following.

(1) $26 - 17 + 15$ $=$	(2) $42 \div 6 \times 7$ $=$
(3) $7 \times 8 - 9$ $=$	(4) $27 \div 3 + 10$ $=$
(5) $12 + 5 \times 4 - 7$ $=$	(6) $24 \div 4 + 5 \times 2$ $=$
(7) $9 \times 4 \div 2 - 10$ $=$	(8) $4 + 35 \div 7 \times 3$ $=$
(9) $16 \div 8 + 8 - 2 \times 5$ $=$	(10) $11 + 6 \times 9 - 36 \div 4$ $=$

(11) $9 \times (3 + 4)$ =	(12) $(63 - 8) \div 5$ =
(13) $33 - (7 + 4)$ =	(14) $120 \div (6 \times 2)$ =
(15) $8 \times 8 - (2 + 8)$ =	(16) $(30 - 3) \div 9 + 34$ =
(17) $81 \div (7 + 2) \times 10$ =	(18) $10 + (11 - 3) \times 5 \div 2$ =
(19) $3 \times 3 - 45 \div (4 + 1)$ =	(20) $5 \times (10 - 6) + 49 \div 7$ =

Whole Numbers (7): Mental Calculation

Find the value of each of the following.

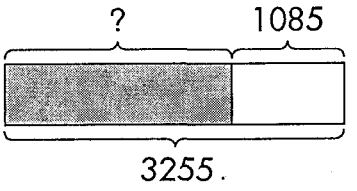
(1) $199 + 25$ $= 200 + 25 - 1$ $=$	(2) $213 + 499$ $=$
(3) $1109 + 599$ $=$	(4) $386 + 104$ $=$
(5) $1245 + 305$ $=$	(6) $2306 + 394$ $=$
(7) $405 - 299$ $= 405 - 300 + 1$ $=$	(8) $1299 - 499$ $=$
(9) $500 - 74$ $=$	(10) $2300 - 38$ $=$
(11) 43×31 $= 43 \times 30 + 43$ $=$	(12) 99×57 $=$
(13) 71×19 $=$	(14) 28×39 $=$
(15) 25×28 $=$	(16) 60×25 $=$

EXERCISE 8

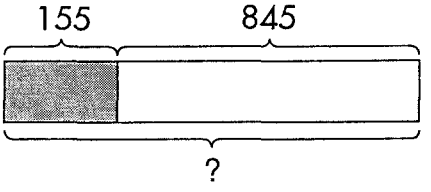
Word Problems

A. Find the missing numbers.

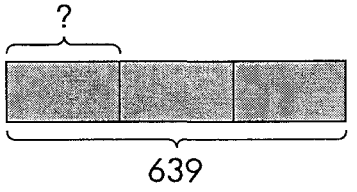
(1) _____ + 1085 = 3255



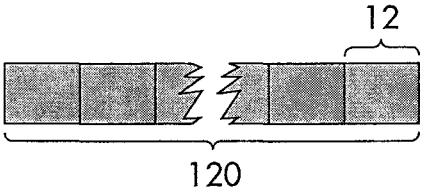
(2) _____ − 845 = 155



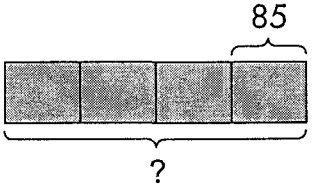
(3) 3 × _____ = 639



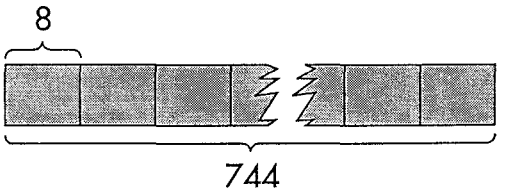
(4) _____ × 12 = 120



(5) _____ ÷ 4 = 85



(6) 744 ÷ _____ = 8



B. Do these sums. Show all your working clearly.

(1) Mr Li had $75. He kept $35 for himself and shared the rest equally between his son and his daughter. How much did each child get?

(2) Zhenhao has 7 boxes of cake. 3 of the boxes have 8 pieces each. The other 4 boxes have 40 pieces altogether. How many pieces of cake are there in the 7 boxes?

(3) Mrs Lim bought 23 dozen pencils. She gave 15 pencils to Xiuli. How many pencils has she left?

(4) Peiling bought 6 bags of marbles. Each bag contained 50 marbles. She shared them equally with John and Lifen. How many marbles did John get?

(5) Book B has 10 times as many pages as book A. If book B has 500 pages, how many pages does book A and book B have altogether?

(6) Ahmad has 1200 rubber bands. He puts them equally into 10 boxes. How many rubber bands are there altogether in 6 of these boxes?

(7) Xiuli gives some money to 3 boys and 5 girls. Each boy gets $15. Each girl gets $18. How much money has she given to them altogether?

(8) Raju is 20 kg lighter than Muru who is 5 kg heavier than Nathan. If Muru weighs 50 kg, what is the total weight of Raju, Muru and Nathan?

(9). Last term, Liming Primary School bought 15 chairs which cost $450 altogether. This term, they bought another 25 similar chairs. How much did the school spend on chairs in the two terms?

(10) Suzhen had $50. She bought 35 pears. Every 5 pears cost $4. How much money had she left?

(11) A furniture shop sold 56 cupboards and 73 bookshelves for $32 375 altogether. Each cupboard cost $350. What was the price of each bookshelf?

(12) A factory wanted to produce 7600 radios. At first, they planned to produce 600 radios each day. However, 8 days later, the remaining radios had to be produced in 4 days. How many more radios than originally planned had to be produced everyday?

ANSWERS

Exercise 1

A (1) 20 104 (2) 32 056 (3) 47 500
(4) 516 240 (5) 602 083 (6) 700 100
(7) 93 005 (8) 2 130 000
(9) 7 405 000 (10) 8 015 000

B (1) Thirty-one thousand and twenty-seven
(2) Forty thousand, five hundred and sixteen
(3) Ten thousand and twenty
(4) Two hundred and thirteen thousand and four hundred
(5) Five hundred and two thousand and one
(6) Three hundred thousand, two hundred and eight
(7) Five million and six thousand
(8) Four million, one hundred and ten thousand
(9) Six million, eight hundred and two thousand
(10) Seven million and ninety-three thousand

C (1) 100 (2) thousands, 3 thousands
(3) ten thousands, 20 thousands
(4) 200 000 (5) 5 millions

D (1) 35 206 (2) 428 007
(3) 600 (4) 70 000

E (1) 25 732, 25 792 (2) 40 136, 40 236
(3) 70 271, 73 271 (4) 65 810, 70 810

F (1) 20 (2) 10 (3) 37 (4) 9
(5) 43 (6) 86 (7) 5, 782, 0
(8) 1, 67, 0 (9) 7, 501, 0
(10) 3, 240, 0

G (1) 4, 0 (2) 2, 60 (3) 4, 950
(4) 4, 210 (5) 2, 370 (6) 2, 910

Exercise 2

A (1) 1, 2, 3, 4, 6, 8, 12, 24
(2) 1, 3, 5, 15, 25, 75
(3) 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84
(4) 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96
(5) 1, 11, 121

B (1) 12 (2) 20 (3) 30 (4) 21
(5) 3 (6) 13

Exercise 3

A (1) 12 470 (2) 30 080 (3) 35 200
(4) 21 600 (5) 65 100 (6) 91 000
(7) 144 000 (8) 219 000

B (1) $1200 (2) $3100 (3) $5700
(4) $10 100 (5) $19 800 (6) $27 000

C (1) $2000 (2) $5000 (3) $18 000
(4) $33 000 (5) $401 000
(6) $593 000

D (1) 1400 (2) 3200 (3) 6000
(4) 7000 (5) 5600 (6) 2500
(7) 0 (8) 2000 (9) 6000
(10) 9000 (11) 40 000 (12) 120 000
(13) 50 (14) 100 (15) 100
(16) 100

Exercise 4

(1) 3470 (2) 8160 (3) 1920
(4) 9300 (5) 17 700 (6) 379 000
(7) 165 200 (8) 514 000
(9) 2 828 000 (10) 372 000

Exercise 5

(1) 59 (2) 30 (3) 11 (4) 23
(5) 9 (6) 13 (7) 45 (8) 25
(9) 6 (10) 12

Exercise 6

(1) 24 (2) 49 (3) 47 (4) 19
(5) 25 (6) 16 (7) 8 (8) 19
(9) 0 (10) 56 (11) 63 (12) 11
(13) 22 (14) 10 (15) 54 (16) 37
(17) 90 (18) 30 (19) 0 (20) 27

Exercise 7

(1) 224 (2) 712 (3) 1708 (4) 490
(5) 1550 (6) 2700 (7) 106 (8) 800
(9) 426 (10) 2262 (11) 1333 (12) 5643
(13) 1349 (14) 1092 (15) 700 (16) 1500

Exercise 8

A (1) 2170 (2) 1000 (3) 213
(4) 10 (5) 340 (6) 93

B (1) $20 (2) 64 (3) 261
(4) 100 (5) 550 (6) 720
(7) $135 (8) 125 kg (9) $1200
(10) $22 (11) $175 (12) 100

Exercise 9

(1) 1092 (2) 6400 (3) 8280
(4) 14 245 (5) 188 760
(6) 1 473 128 (7) 99 015 (8) 80 122