

1) (Text 5A, Practice 5A, p 79)

(#1) (a) 3:6 or 1:2 (b) 6:4 or 3:2

(#2) 16:12 or 4:3

(#3) 35:15 or 7:3

(#4) $2:7 = 4:14$ She used 14 liters of water

(#5) shorter piece  } 60 5 units = 60 m
longer piece  } 60 1 unit = $60 \div 5 = 12$ m
2 units = 2×12 m = 24 m

The shorter piece is 24 m

(#6) $6:5 = 48:40$ John weighs 40 Kg

alt/ 6 units = 48 kg
1 unit = $48 \div 6 = 8$ kg
5 units = 5×8 kg = 40 kg

John's weight is 40 kg.

(#7) $2:5 = 100:250$ There are 250 girls So $100 + 250 = 350$ children altogether

alt/ 2 units = 100
1 unit = $100 \div 2 = 50$
7 units = $7 \times 50 = 350$

There are 350 children altogether.

alt/ Ratio of BOYS-to-GIRLS 2:5
So ratio of BOYS-to-EVERYONE 2:7

BOYS
EVERYONE

$$\frac{2}{7} = \frac{100}{T}$$

$$2T = 700$$

$$T = 350$$

So 350 altogether

2) (Text 5A, Practice 5B, p 82)

(#4) 11 units = 121
1 unit = $121 \div 11 = 11$
7 units = $7 \times 11 = 77$ There are 77 boys

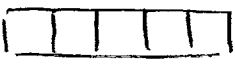
(#5) 100:120 or 5:6

- (#6) 9 units = 90 cm
 1 unit = $90 \div 9 = 10$ cm
 (a) 3 units = $3 \times 10 = 30$ cm painted green
 (b) 2 units = $2 \times 10 = 20$ cm painted black

note: this is equivalent to doing
 $3x + 4x + 2x = 90$
 $9x = 90$
 $x = 10 \leftarrow$ FOUND UNIT

So $3 \times 10 = 30$ cm painted GREEN
 $4 \times 10 = 40$ cm painted WHITE
 $2 \times 10 = 20$ cm painted BLACK

- (#7) CEMENT: SAND: STONE 1:2:4
 The total volume of sand and stone is 24 m^3
 So 6 units = 24 m^3 (a) volume of cement = 1 unit = 4 m^3
 1 unit = 4 m^3 (b) volume of sand = 2 units = 8 m^3
 (wasn't asked - but volume of stone = 4 units = 16 m^3)

- (#8) David 
 Ryan 
 Ali 

5 units = 30 kg
 1 unit = $30 \div 5 = 6$ kg

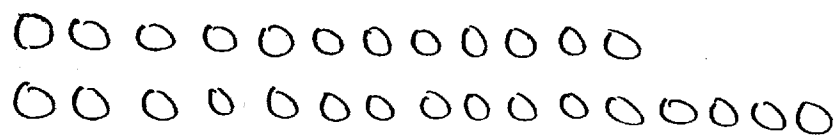
$8 + 5 + 4 = 17$ units
 (Total)

$17 \text{ units} = 17 \times 6 \text{ kg}$
 $= 102 \text{ kg}$

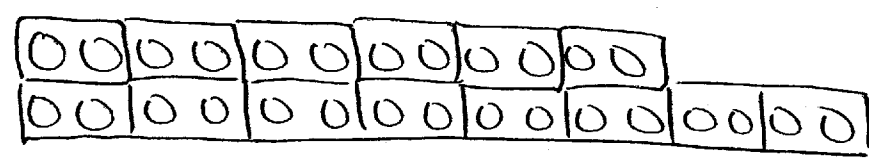
The total weight of the 3 boys is 102 kg

- (#9) 2 units = \$30
 1 unit = $\$30 \div 2 = \15 $\nearrow$ 5 units = $5 \times \$15 = \75
 The biggest share is \$75

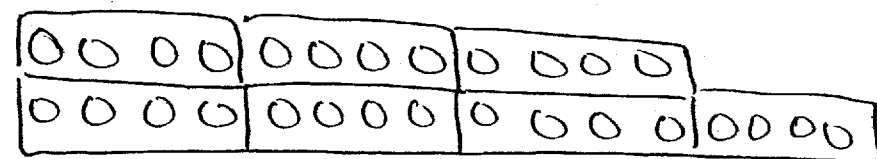
3) 12:16



6:8



3:4



4) (WORKBOOK, pgs 82-90)
5A

Exercise 34

- ① a) 3:4 b) 4:3
② a) 5:3 b) 3:5
③ a) 2:3 b) 3:2
④ a) 5:3 b) 3:5
⑤ a) 3:7 b) 7:3
⑥ a) 6:5 b) 5:6

Exercise 35

- ① a) 2:5 b) 3:5
② $\begin{array}{l|l} 2:3 & 3:1 \\ 1:4 & 3:5 \\ 5:3 & 2:1 \\ 5:6 & 4:5 \\ 1:2 & 5:4 \end{array}$
③ a) 5 b) 32 c) 36 d) 28
e) 1 f) 2 g) 1 h) 12
i) 4 j) 15 k) 1 l) 4
- ④ 5:4
⑤ 3:2
⑥ 13:18

Exercise 36

- ① $7:4 = 105:60$ There are 105 apples

alt/ $\begin{array}{l} 4 \text{ units} = 60 \\ 1 \text{ unit} = 60 \div 4 = 15 \\ 7 \text{ units} = 7 \times 15 = 105 \text{ apples} \end{array}$

alt/ $\frac{\text{APPLES}}{\text{ORANGES}} \quad \frac{7}{4} = \frac{A}{60} \rightarrow 4A = 420$
 $A = 105 \text{ apples}$

- ② $5:3 = 70:42$ The original ribbon was $70 + 42 = 112 \text{ cm}$ long

alt/ $\begin{array}{l} 3 \text{ units} = 42 \text{ cm} \\ 1 \text{ unit} = 42 \div 3 = 14 \text{ cm} \\ 8 \text{ units} = 8 \times 14 = 112 \text{ cm} \end{array}$

- ③ Skirt 
Blouse  \$24

$\begin{array}{l} 3 \text{ units} = \$24 \\ 1 \text{ unit} = \$8 \\ 5 \text{ units} = \$40 \end{array}$ The blouse costs \$40

- ④ John 
Peter  } \$280

$\begin{array}{l} 10 \text{ units} = \$280 \\ 1 \text{ unit} = \$28 \\ 4 \text{ units} = \$112 \end{array}$

John received \$112 more than Peter
(John received $7 \cdot \$28 = \196 ; Peter received $3 \cdot \$28 = \84)

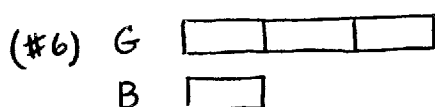
Exercise 37

- ① 2:4:3
② 3:2:4
③ 6:2:8
(which is equivalent to 3:1:4)
④ 12:10:8 or 6:5:4
⑤ 24:18:30 or 4:3:5
⑥ 12:12:8 or 3:3:2

Exercise 38

- ① $\begin{array}{l} 5 \text{ units} = 90 \\ 1 \text{ unit} = 18 \\ 10 \text{ units} = 180 \end{array}$ There are 180 beads altogether
② $\begin{array}{l} 9 \text{ units} = 45 \\ 1 \text{ unit} = 5 \\ 4 \text{ units} = 20 \end{array}$ The longest side is 20 cm

5) (6A, Practice 3A, p29)

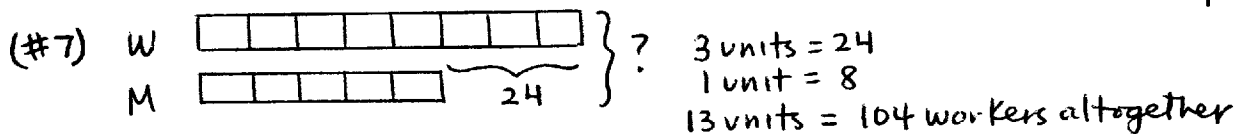


a) GIRLS-to- EVERYONE 3:4

b) $\frac{1}{4}$ of the children are boys

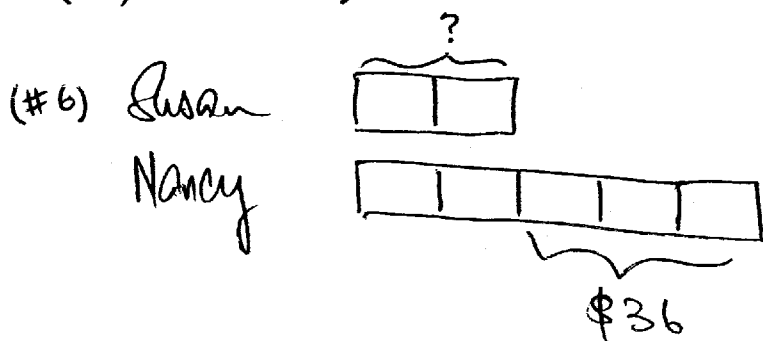
c) 3 units = 27
1 unit = 9
4 units = 36 children altogether

alt/ $\frac{\text{GIRLS}}{\text{EVERYONE}} = \frac{3}{4} = \frac{27}{T}$
 $3T = 108$
 $T = 36$ altogether



(#8) written up on HANDOUT on 7.1

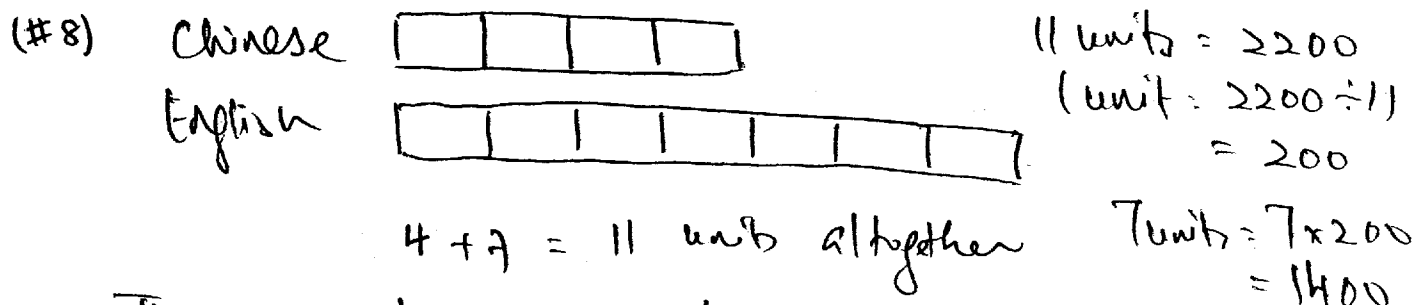
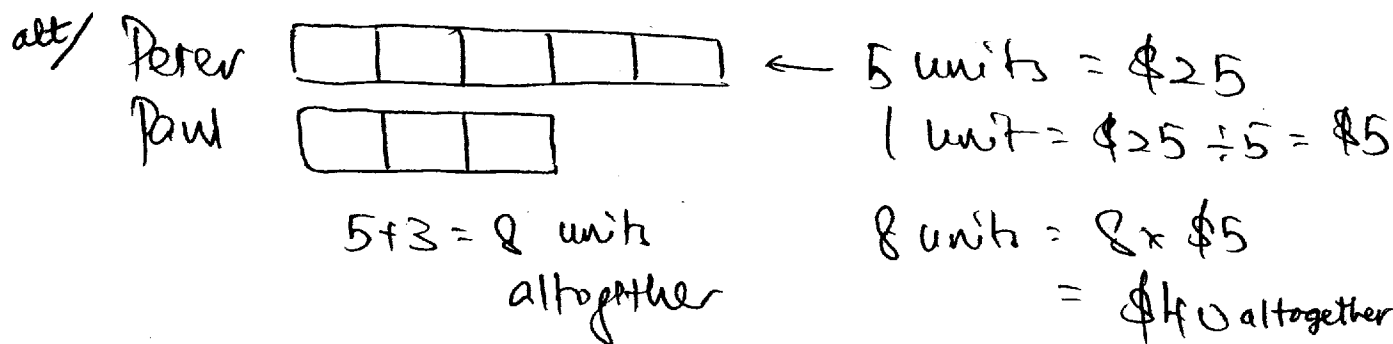
(6A, Practice 3B, p33)



3 units = \$36
1 unit = \$36 $\div$ 3 = \$12
2 units = 2 $\times$ \$12
= \$24

Susan received \$24.

(#7) 5:3 = 25: 15 So they have \$25 + \$15 = \$40 altogether



There are 1400 English books.

(#9) $4 + 5 + 6 = 15$ units altogether

15 units = 60 cm

1 unit = 4 cm

4 units = 16 cm The shortest side is 16 cm
