

Name : _____ class : _____ class no. : _____

Fundamental Arithmetic 基礎算術

1. Fill in the blanks 填充

(a) Convert 0.4 into a fraction:

把 0.4 化爲分數 : _____

(b) Convert 3.2 into an improper fraction:

把 3.2 化爲假分數 : _____

(c) Convert $4\frac{1}{2}$ into a decimal:

把 $4\frac{1}{2}$ 化爲小數 : _____

(d) Convert $\frac{14}{3}$ into a mixed fraction:

把 $\frac{14}{3}$ 化爲帶分數 : _____

(e) Convert 4.2 into a mixed fraction:

把 4.2 化爲帶分數 : _____

(f) Convert $5\frac{2}{25}$ into a decimal:

把 $5\frac{2}{25}$ 化爲小數 : _____

2. Calculate each of the following expressions. 計算下列各題：

(a) 23×32

(b) $84 \div 14$

(c) $455 + 316$

(d) $0.4 + 0.7$

(e) $12.5 + 0.34$

(f) $14.9 - 1.24$

(g) 4.3×1.8

(h) $3 \div 4$

(i) $22.2 \div 3.7$

(j) 7.8×0.5

(k) $12.4 \div 0.02$

(l) 3.48×2.7

(m) $\frac{7}{10} - \frac{2}{5}$

(n) $\frac{1}{2} + \frac{1}{3}$

(o) $1\frac{1}{2} \times \frac{2}{3}$

(p) $\frac{4}{3} \times \frac{9}{12}$

(q) $\frac{3}{4} \div \frac{6}{8}$

(r) $\frac{15}{8} \div \frac{25}{40}$

3. Find the values of the following expressions. 求下列各算式的值：

(a) $(5-3) \times (88 \div 4)$

(b) $(90-34) \div 7 \times 8$

(c) $0.2 \times 2.4 \div 0.6$

(d) $24.3 \div 3 + 47.1 \div 3$

(e) $0.1 + 0.2 \times 0.3$

(f) $\frac{2}{3} - \frac{1}{4} - \frac{1}{12}$

(g) $(\frac{9}{14} - \frac{3}{7}) \times \frac{21}{12}$

(h) $\frac{1}{4} \div \frac{1}{5} \times \frac{8}{10}$

(i) $\frac{4}{5} - \frac{1}{6} \div \frac{10}{18}$

(j) $0.2 + \frac{1}{2}$

(k) $3.2 \div \frac{4}{5}$

(l) $5 \times (\frac{1}{5} + 0.5)$

Percentages 百分數

1. Complete the following table. 完成下表。

	Fraction 分數	Decimal 小數	Percentage 百分數
Example 例	$\frac{1}{100}$	0.01	1%
(a)	$\frac{31}{100}$		
(b)	$\frac{4}{25}$		
(c)		0.04	
(d)		0.54	
(e)			34%
(f)			90%

2. Evaluate the following and give your answers in percentages.

計算下列各題，答案以百分數表示。

(a) $5\% + 12\%$

(b) $35\% - 25\%$

(c) $1 + 6\%$

= 17%

(d) $20\% \times 5$

(e) $60\% \div 4$

(f) $45\% + (1 - 12\%)$

3. Evaluate the following.

計算下列各題的答案。

(a) 20% of 12 (12的20%)	(b) 25% of 400 (400的25%)
(c) 12.5% of 50cm (50cm的12.5%)	(d) 75% of 640g (640g的75%)
(e) 30% of 30m (30m的30%)	(f) 250% of \$760 (\$760的250%)

4. Fill in the blanks with suitable percentages.

在下列空格內填上適當的百分數。

(a) 23 is _____ of 92.

23 是 92 的 _____。

(b) 40 is _____ of 90.

40 是 90 的 _____。

(c) \$12 is _____ of \$15.

\$12 是 \$15 的 _____。

(d) 45 m is _____ of 36 m

45 米是 36 米的 _____。

5. What is 36% of 900?

900 的 36% 是多少?

6. What percentage of 900 is 36?

36 是 900 的百分之幾?

Simple Equation 簡易方程

Solve the following equations. 解以下方程。

(1) $x + 5 = 15$

(2) $x - 5 = 15$

(3) $3x = 9$

(4) $\frac{x}{5} = 4$

(5) $2x - 7 = 9$

(6) $5 + 4x = 21$

(7) $32 = 8x + 16$

(8) $\frac{x}{5} = 5 + 9$

(9) $\frac{x}{5} - 1 = 1$

$$(10) 1 + \frac{x}{3} = 7$$

$$(11) 4x - 5 = 11 + 16$$

$$(12) 3 + 4x = 9$$

$$(13) \frac{3x}{5} = \frac{12}{25}$$

$$(14) 1\frac{1}{2}x = \frac{9}{10}$$

$$(15) \frac{x}{2} - \frac{3}{2} = \frac{5}{4}$$

$$(16) 2\frac{3}{4} + x = 3$$

$$(17) \frac{3x-6}{2} = 6$$

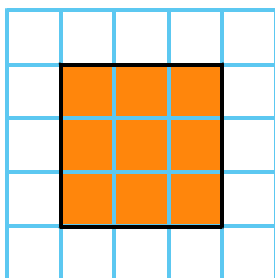
$$(18) 18 + 4 = 7x + 1$$

Area of Simple Figures 簡單圖形的面積

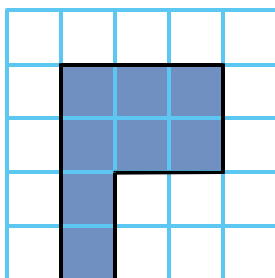
1. Suppose the area of each small square is 1 cm^2 , find the area of the shaded region in each of the following figures.

假設每個小方格的面積是 1 cm^2 ，求下列各圖中陰影部分的面積。

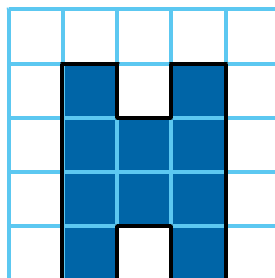
(a)



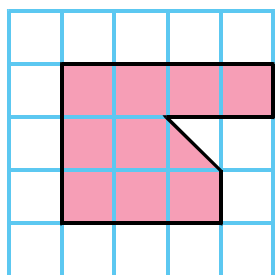
(b)



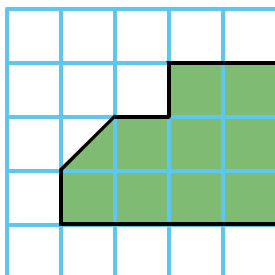
(c)



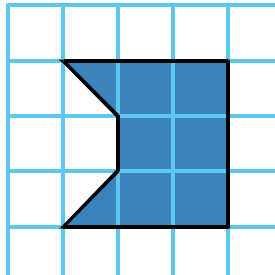
(d)



(e)

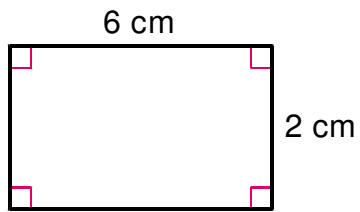


(f)

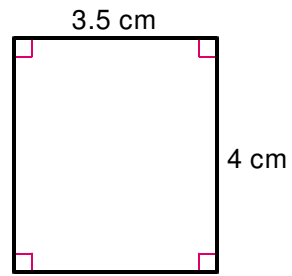


2. Find the area of each of the following figures. 求下列各圖形的面積。

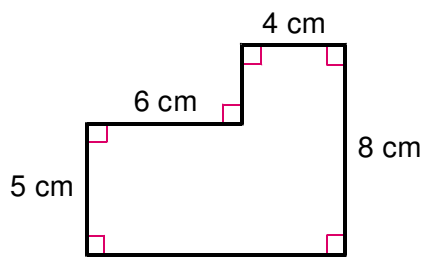
(a)



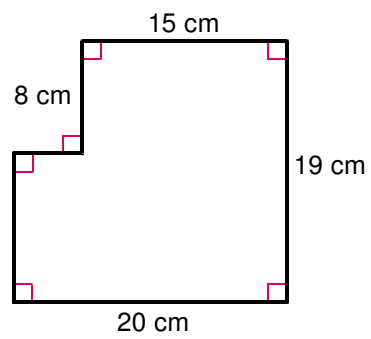
(b)



(c)



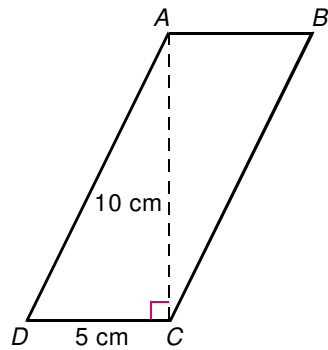
(d)



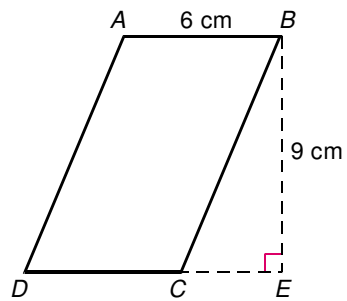
3. Find the area of parallelogram $ABCD$ in each of the following figures.

求下列各圖中平行四邊形的面積。

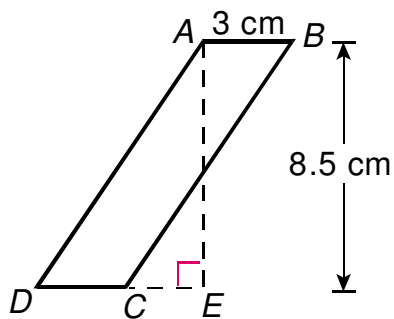
(a)



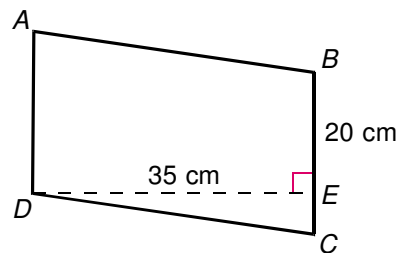
(b)



(c)

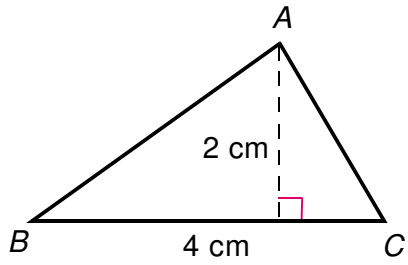


(d)

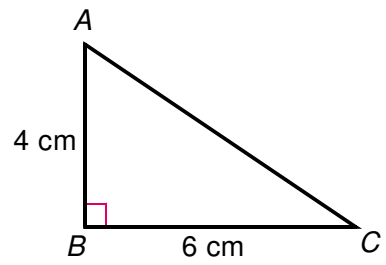


4. Find the area of each of the following figures. 求下列各圖中的面積。

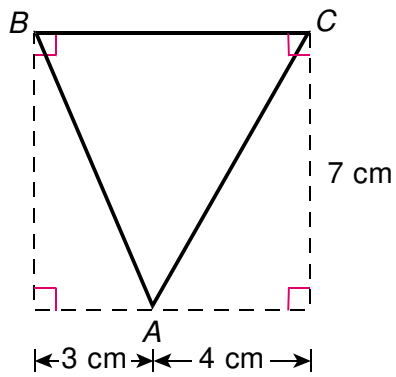
(a)



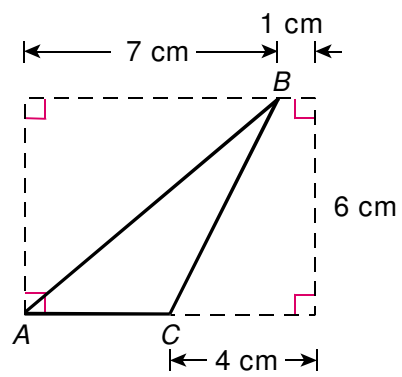
(b)



(c)



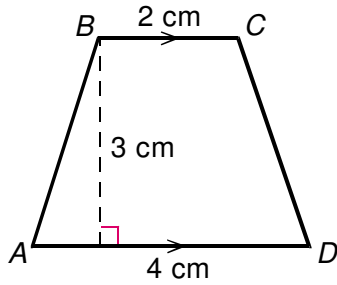
(d)



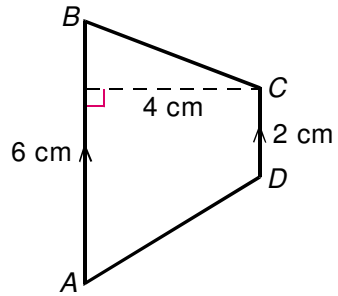
5. Find the area of trapezium $ABCD$ in each of the following figures.

求下列各圖中梯形 $ABCD$ 的面積。

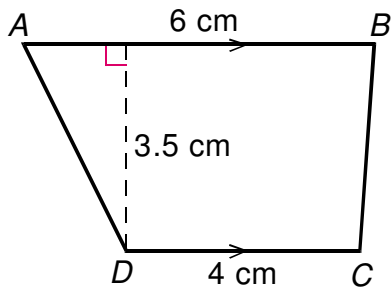
(a)



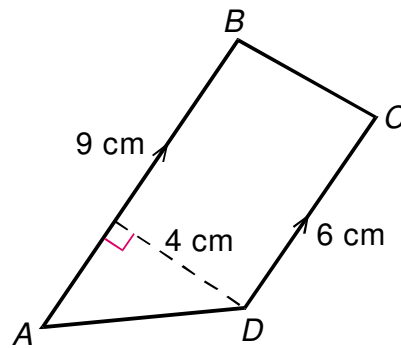
(b)



(c)



(d)



Problems 應用題

1. Find the result of each of the following.

(a) Add 3 to the difference of subtracting 5 from 12.

把從 12 減去 5 所得的差加上 3。

(b) Subtract 4 from the sum of 8 and 3.

從 8 與 3 的和減去 4。

(c) Divide 63 by the product of 3 and 7.

63 除以 3 與 7 的積。

(d) Multiply 24 by the quotient of dividing 14 by 2.

把 14 除以 2 所得的商乘以 24。

2. \$165 is paid for buying three identical keyboards and a change of \$3 is received. What is the selling price of each keyboard?

付\$165買三個相同的鍵盤，找回\$3，則每個鍵盤的售價是多少？

3. Express 24% in fraction.

把 24% 轉換為分數。

4. There are n files in a computer folder. After adding 12 files, the folder has 70 files. Find the value of n .

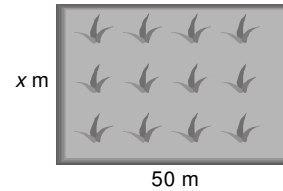
某電腦的文件夾內含有 n 個檔案。若再建立 12 個檔案，該文件夾便有 70 個檔案，求 n 的值。

5. Given that the sum of 3 times x and 11 is 32, find x .

已知 x 的 3 倍與 11 之和是 32，求 x 。

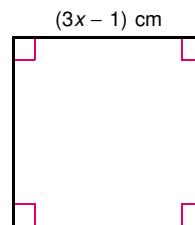
6. In the figure, the area of the rectangular garden is 2000 m^2 , find the value of x .

下圖中，長方形花園的面積是 2000 m^2 。求 x 的值。



7. If the perimeter of the square as shown in the figure is 20 cm , find the value of x .

若下圖中正方形的周界是 20 cm ，求 x 的值。



8. The selling price of a carton of lemon tea is $\$x$ and the selling price of a can of cola is $\$(2x - 1)$. If $\$8$ are paid for a carton of lemon tea and a can of cola, find the value of x .

每盒檸檬茶的售價為 $\$x$ ，每罐可樂的售價為 $\$(2x - 1)$ 。若購買一盒檸檬茶和一罐可樂共付 $\$8$ ，求 x 的值。

9. A man bought 100 oranges for $\$200$. Later, he sold them all at $\$3.5$ each. Calculate his profit.

某人用 $\$200$ 買入 100 個橙。其後他把這些橙用每個 $\$3.5$ 的價錢全部賣出。計算他的盈利。

10. The monthly salary of Mike is \$7000 and his rent is 35% of the salary. How much is his rent per month?

文傑的月薪是\$7000，他每月的租金佔薪金的35%，問他每月的租金是多少？

11. David bought 11 ball-point pens for \$12 each and y pencils for \$7 each. If David paid \$237 in total, find y .

仁俊買了11支每支價值\$12的原子筆及 y 支每支價值\$7的鉛筆。若仁俊共付了\$237，求 y 。

12. Kevin has to pay a school fee of \$800 each month, which is 5% of his monthly salary. Find his monthly salary.

建新每月需繳交學費\$800，佔他月薪的5%，求他的月薪。

13. Fanny is 5 kg heavier than Nancy. If the sum of their weights is 101 kg, find the weight of Nancy.

美芬比麗明重 5 kg。若她們的體重之和是 101 kg，求麗明的體重。

14. Ada has x marbles. After she has given $\frac{1}{3}$ of the marbles to her sister, 12 remain. Find the value of x

少芬有彈珠 x 粒。她把 $\frac{1}{3}$ 的彈珠分給妹妹後，餘下 12 粒，求 x 的值。

15. Two brothers have 39 story books. If the elder brother has 3 more story books than twice the story books the younger brother has, how many story books does the younger brother have?
兄弟二人有故事書 39 本。若兄擁有故事書的數量比弟的兩倍多 3 本，問弟弟有多少本故事書？

16. A father is 27 years older than his son. Five years later, the sum of their ages will be 49. Find their present ages.
子健的父親較他大 27 歲，他們五年後的歲數總和是 49 歲。求他們現時的年齡。

Answers

Fundamental Arithmetic

1. (a) $\frac{2}{5}$ (b) $\frac{16}{5}$
 (c) 4.5 (d) $4\frac{2}{3}$
 (e) $4\frac{1}{5}$ (f) 5.08
2. (a) 736 (b) 6
 (c) 771 (d) 1.1
 (e) 12.84 (f) 13.66
 (g) 7.74 (h) 0.75
 (i) 6 (j) 3.9
 (k) 620 (l) 9.396
 (m) $\frac{3}{10}$ (n) $\frac{5}{6}$
 (o) 1 (p) 1
 (q) 1 (r) 3
3. (a) 44 (b) 64
 (c) 0.8 (d) 23.8
 (e) 0.16 (f) $\frac{1}{3}$
 (g) $\frac{3}{8}$ (h) 1
 (i) $\frac{1}{2}$ (j) $\frac{7}{10}$
 (k) 4 (l) $\frac{7}{2}$

Percentages

1.

	分數	小數	百分數
例	$\frac{1}{100}$	0.01	1%
(a)	$\frac{31}{100}$	0.31	31%
(b)	$\frac{4}{25}$	0.16	16%
(c)	$\frac{1}{25}$	0.04	4%
(d)	$\frac{27}{50}$	0.54	54%
(e)	$\frac{17}{50}$	0.34	34%
(f)	$\frac{9}{10}$	0.9	90%

2. (a) 17% (b) 10%
 (b) 106% (d) 100%
 (e) 15% (f) 133%
3. (a) 2.4 (b) 100
 (c) 6.25 cm (d) 480 g
 (e) 9 m (f) \$ 1900
4. (a) 25% (b) $44\frac{4}{9}\%$
 (c) 80% (d) 125%

- (e) 25% (f) 400%
5. 324
6. 4%

Simple Equation

1. (1) $x = 10$ (2) $x = 20$
 (3) $x = 3$ (4) $x = 20$
 (5) $x = 8$ (6) $x = 4$
 (7) $x = 2$ (8) $x = 70$
 (9) $x = 10$ (10) $x = 18$
 (11) $x = 8$ (12) $x = \frac{3}{2}$
 (13) $x = \frac{4}{5}$ (14) $x = \frac{3}{5}$
 (15) $x = \frac{11}{2}$ (16) $x = \frac{1}{4}$
 (16) $x = 6$ (18) $x = 3$

Area of Simple Figures

1. (a) 9 cm^2 (b) 8 cm^2
 (c) 10 cm^2 (d) 9.5 cm^2
 (e) 9.5 cm^2 (f) 7 cm^2
2. (a) 12 cm^2 (b) 14 cm^2
 (c) 62 cm^2 (d) 340 cm^2
3. (a) 50 cm^2 (b) 54 cm^2
 (c) 25.5 cm^2 (d) 700 cm^2

4. (a) 4 cm^2 (b) 12 cm^2
 (c) 24.5 cm^2 (d) 12 cm^2
5. (a) 9 cm^2 (b) 16 cm^2
 (c) 17.5 cm^2 (d) 30 cm^2

Problems

1. (a) 10 (b) 7
 (c) 3 (d) 168
2. \$54
3. $\frac{6}{25}$
4. 58
5. 7
6. 40
7. 2
8. 3
9. \$150
10. \$2450
11. 15
12. \$16 000
13. 48 kg
14. 18
15. 12
16. son: 6, father: 33