

**NANYANG PRIMARY SCHOOL**  
**SECOND CONTINUAL EXAMINATION**  
**2011**

**PRIMARY 5**  
**MATHEMATICS**

**PAPER 1**

**DURATION: 50 MINUTES**

<b>Booklet A</b>	<b>/ 20</b>
<b>Booklet B</b>	<b>/ 20</b>

<b>Paper 1 Total:</b> <b>/ 40</b>
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Name: \_\_\_\_\_ (       )

Class: Primary 5 (       )

Date: 24 August 2011

Parent's Signature: \_\_\_\_\_

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

**FOLLOW ALL INSTRUCTIONS CAREFULLY.**

**ANSWER ALL QUESTIONS.**

**YOU ARE NOT ALLOWED TO USE A CALCULATOR.**

**PAPER 1 (BOOKLET A)**

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

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1 Round off 44 501 to the nearest ten thousands.

- (1) 40 000
- (2) 44 000
- (3) 45 000
- (4) 50 000

2 Find the value of  $4.4 \div 200$ .

- (1) 0.22
- (2) 0.44
- (3) 0.022
- (4) 0.044

3 Which of the following has the same value as  $\frac{0.29}{4}$ ?

(1)  $\frac{29}{400}$

(2)  $\frac{29}{4000}$

(3)  $\frac{2.9}{400}$

(4)  $\frac{2.9}{4}$

4 Which of the following is the same as  $2\frac{7}{10}$  l?

(1) 207 ml

(2) 270 ml

(3) 2070 ml

(4) 2700 ml

5 Round off 31.156 to 2 decimal places.

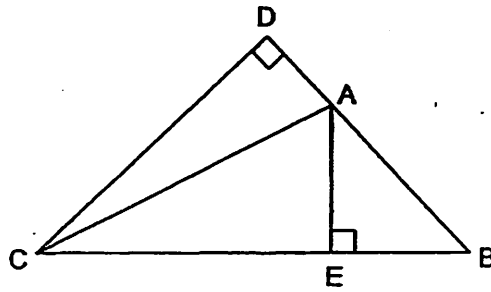
(1) 31.05

(2) 31.15

(3) 31.16

(4) 31.20

- 6 In the figure below, what is the height of triangle ABC given that the base is AB?



- (1) AC  
(2) AE  
(3) CD  
(4) BC
- 7 Which of the following is not an equivalent ratio of 12 : 42 ?
- (1) 1 : 4  
(2) 2 : 7  
(3) 4 : 14  
(4) 24 : 84
- 8 At present, Tammy is 20 years old while her mother is thrice her age. Find the ratio of Tammy's age to her mother's age in 6 years' time.
- (1) 1 : 3  
(2) 7 : 9  
(3) 7 : 27  
(4) 13 : 33

- 9 A cuboid has a base of area  $5 \text{ cm}^2$ ,  $\frac{1}{3}$  of the height of cuboid is 6 cm.  
What is the volume of the cuboid?

- (1)  $10 \text{ cm}^3$
- (2)  $18 \text{ cm}^3$
- (3)  $30 \text{ cm}^3$
- (4)  $90 \text{ cm}^3$

- 10 Express 25 m as a percentage of 0.2 km.

- (1) 0.8 %
- (2) 8 %
- (3) 12.5 %
- (4) 125 %

- 11 Find the missing operation in the box below.

$$7 \times (30 \square 3) - (32 \div 4) = 223$$

- (1) +
- (2) -
- (3)  $\times$
- (4)  $\div$

- 12 Jolin had  $2\frac{3}{10}$  m of ribbon. The length of ribbon that Mary had was 5 times as long as the length of ribbon Jolin had. What was the length of ribbon that Mary had?

(1)  $\frac{23}{50}$  m

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

(3)  $7\frac{3}{10}$  m

(4)  $11\frac{1}{2}$  m

- 13 The ratio of the number of black beads to the number of red beads to the number of green beads in a box was 3 : 9 : 11. When a total number of 60 black beads and red beads were added into the box, the number of black beads, red beads and green beads became the same. How many beads were in the box at first?

(1) 115

(2) 138

(3) 198

(4) 460

**14** A rectangular tank measured 9 cm by 6 cm by 4 cm was half-filled with water. If all its water was used to fill 4 identical cubical containers to the brim, what was the length of each edge of a cubical container?

(1) 54 cm

(2) 27 cm

(3) 3 cm

(4) 6 cm

**15** Teck Ming spent 60% of his salary and gave 25% of the remaining salary to his parents and saved the rest. If he saved \$840, what was Teck Ming's salary?

(1) \$1120

(2) \$2800

(3) \$3360

(4) \$5600

Name: \_\_\_\_\_ (                    ) Class: Pr 5 (                    )

P5 CA2 2011

**PAPER 1 (BOOKLET B)**

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

- 
- 16 What is the smallest whole number that gives 978 000 when rounded off to the nearest thousand?

Ans: \_\_\_\_\_

- 
- 17 Insert a pair of brackets "(                    )" in the equation below so that it is mathematically correct.

$$280 \div 7 - (6 \times 5 + 8) = 2$$

- 
- 18 Find the value of  $\frac{8}{9} \div 4$ . Leave your answer in its simplest form.

Ans: \_\_\_\_\_

19 Express  $\frac{7}{8}$  as a decimal.

Ans: \_\_\_\_\_

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20 The mass of a box was 3.8 kg when completely filled with sand. 650 g of sand could fill  $\frac{1}{4}$  of the box. What was the mass of the empty box? Leave your answer in kilograms.

Ans: \_\_\_\_\_ kg

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21  $\frac{2}{3}$  of the amount of money Ahmad had was the same as  $\frac{1}{3}$  of the amount of money May had. Find the ratio of the amount of money Ahmad had to the amount of money May had. Express the ratio in its simplest form.

Ans: \_\_\_\_\_

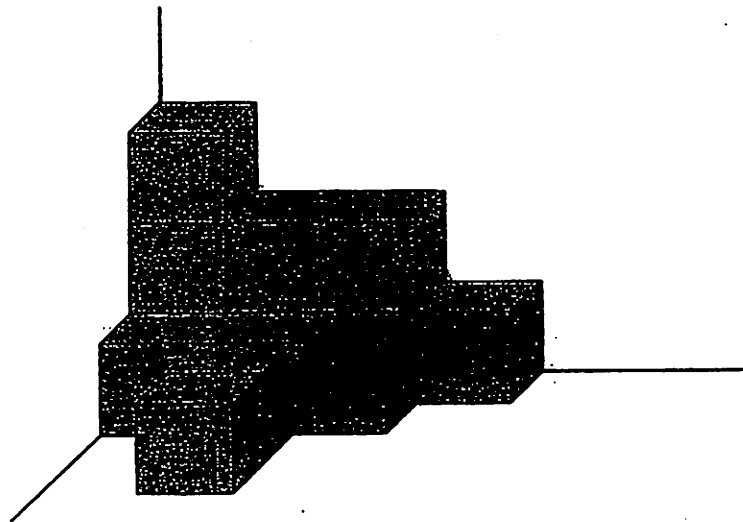
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- 22 A sack of 51 apples was repacked into two smaller packs, Pack A and Pack B. The ratio of the number of apples in Pack A to the number of apples in Pack B is 8 : 9. Find the number of apples in Pack A.

Ans: \_\_\_\_\_

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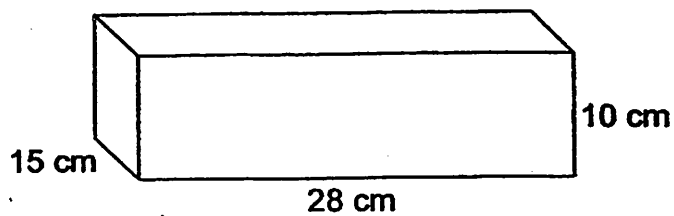
- 23 The figure below shows a solid which is made up of unit cubes. How many more unit cubes must be added to make a solid with a volume of 20 cubic units?



Ans: \_\_\_\_\_

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- 24 A wooden cuboid measures 28 cm by 15 cm by 10 cm.  
What is the maximum number of 4-cm cubes that can be cut from it?



Ans: \_\_\_\_\_

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- 25 Express 0.201 as a percentage.

Ans: \_\_\_\_\_%

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Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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- 26 Fanny had to prepare fruit punch in a container with a capacity of  $17\frac{1}{4}$  l. She poured some fruit punch syrup into the container. Then she added 9 jugs of water to fill the container to its brim. Each jug had a capacity of  $1\frac{3}{4}$  l. What was the amount of fruit punch syrup that Fanny had poured into the container? Leave your answer as a mixed number in its simplest form.

Ans: \_\_\_\_\_ l

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27 Siting had some pens.  $\frac{2}{5}$  of them were red and the rest were blue.

She sold  $\frac{5}{8}$  of the red pens and  $\frac{2}{3}$  of the blue pens. She had 70 pens left. How many pens did Siting have at first?

Ans: \_\_\_\_\_

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28 5 identical Math books and 3 identical Science books were placed on top of one another to form a stack of books which was 4.05 cm high. If 1 of the Science book was removed from the stack, the height will become 3.7 cm. What was the thickness of each Math book?

Ans: \_\_\_\_\_ cm

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- 29 The height of the water level in a tank rose from 80 cm to 1.16 m. Express the increase in the height of the water level as a percentage of the original height of the water level.

Ans: \_\_\_\_\_%

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- 30 Yusof took 30 minutes to clean his father's car while his elder brother only took 15 minutes to clean it. How long would both of them take to clean the car together?

Ans: \_\_\_\_\_min

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**PAPER 2**

**DURATION: 1 HOUR 40 MINUTES**

<b>Paper 2 Total</b>	<b>/ 60</b>
<b>GRAND TOTAL</b>	<b>/ 100</b>

Name: \_\_\_\_\_ (       )

Class: Primary 5 (       )

Date: 24 August 2011

Parent's Signature: \_\_\_\_\_

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**PAPER 2**

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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- 1 Gopal wanted to walk to a park which was  $2\frac{2}{5}$  km away from his home. He took a short break after he had covered  $\frac{1}{5}$  of the distance. After the break, he walked another  $\frac{3}{25}$  km. Find the distance that Gopal had covered. Express your answer as a fraction in its simplest form.

Ans: \_\_\_\_\_ km

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- 2 The table below shows the charges for travelling in a taxi.

Distance Travelled	Cost
For the first 1 km	\$2.80
For every subsequent 385 m or part thereof	\$0.20

Mr Tan had travelled 10.4 km in the taxi. How much did he pay?

Ans: \$ \_\_\_\_\_

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- 3 The ratio of the area of a rectangle to the area of a square is 2 : 7. The length of the square is 28 cm, find the area of the rectangle.

Ans: \_\_\_\_\_ cm<sup>2</sup>

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- 4 A music room had a total of 176 keyboards and recorders. The ratio of the number of keyboards to the number of recorders is 3 : 5. After some keyboards were removed from the room, the number of recorders became twice the number of keyboards. How many keyboards were removed from the music room?

Ans: \_\_\_\_\_ [2]

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- 5 Alimah bought a mobile phone at 20% discount off its original price. She paid a total of \$107 for the mobile phone which was inclusive of a 7% GST on the discounted price. What was the original price of the mobile phone?

Ans: \$ \_\_\_\_\_

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For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(50 marks)

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6 Rosna's monthly allowance was \$2700. She spent  $\frac{2}{3}$  of her monthly allowance on food and  $\frac{3}{10}$  of the remainder on clothes. After she had paid for her children's enrichment classes, she had \$225 left.

(a) What fraction of her monthly allowance did she spend on clothes?

(b) How much did she spend on her children's enrichment classes?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

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- 7 Haru was reading a book. On the first day, the ratio of the number of pages he had read to the number of pages he had not read was 1 : 9. On the second day, Haru read another 20 pages and the ratio of the number of pages he had read to the number of pages he had not read became 1 : 7. How many pages did the book have?

Ans: \_\_\_\_\_ [3]

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- 8 A rectangular tank with a base area of  $56 \text{ cm}^2$  contained some water. The height of the water level was  $\frac{2}{5}$  that of the height of the tank. The volume of the water in the tank was  $3584 \text{ cm}^3$ . Find the height of the tank.

Ans: \_\_\_\_\_ [3]

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- 9 Mrs Yeo bought some identical dresses for \$480. If she bought them at the Great Singapore Sales, she could buy them at a discount of 25%. With the amount of money saved, she could then buy 2 more such dresses at the discounted price. How much did Mrs Yeo pay for each dress?

Ans: \_\_\_\_\_ [3]

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- 10 There were 20 questions in a Science Quiz. For every question answered correctly, 6 marks would be awarded. For every question answered wrongly, 3 marks would be deducted. Jamie answered all the questions and scored 75 marks. How many questions did she answer correctly?

Ans: \_\_\_\_\_ [3]

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11 The cost of 8 identical pens, 3 identical books and 1 file is \$74. The cost of 2 such pens and one of such file is \$23, while the cost of the pen and the book is \$12.

(a) What is the cost of 5 such pens and 2 such books?

(b) What is the cost of one book?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]

12 There were 2 factories in the same district. There were 1190 more workers in Factory A than in Factory B. After 457 workers had left Factory B, the number of workers in Factory A became 4 times the number of workers in Factory B.

(a) How many workers were there in Factory A?

(b) How many workers were there in Factory B at first?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]

- 13 There were 420 children in a childcare centre. 20% of the children were girls. Then some girls were enrolled into the childcare centre and the number of girls became 0.4 of the total number of children in the childcare centre. How many additional girls were enrolled into the childcare centre?

Ans: \_\_\_\_\_ [4]

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- 14 The length of a rectangular tank was  $\frac{3}{2}$  of its breadth. The ratio of its breadth to its height was 5 : 4. When the tank was half-filled with water, the height of the water level was 8 cm.
- (a) Find the capacity of the tank.
- (b) A tap filled the half-filled tank at a rate of 6 litres per minute. How long did it take to fill up the tank completely?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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- 15 Hanson had some one-dollar coins and some fifty-cent coins. The ratio of the number of one-dollar coins to the number of fifty-cent coins he had was  $2 : 5$ . Hanson took 140 fifty-cent coins to the bank and changed these fifty-cent coins for the same value of one-dollar coins. In the end, the number of one-dollar coins to the number of fifty-cent coins he had became  $5 : 2$ . Find the value of the fifty-cent coins Hanson had at first.

Ans: \_\_\_\_\_ [5]

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16 NY Primary School organised a 2-Day Charity Funfair. Admission tickets were sold to every visitor at a cost of \$40. On the first day, 120 more children visited the funfair than adults. The number of children on the second day was 25% more than the number of children on the first day. The number of adults on the second day was 5% less than the number of adults on the first day. There were a total of 2570 people at the funfair on the second day.

- (a) Find the number of adults at the funfair on the first day.
- (b) What was the total sum of money collected from the sale of the admission tickets for both days?

Ans: (a) \_\_\_\_\_ [3]

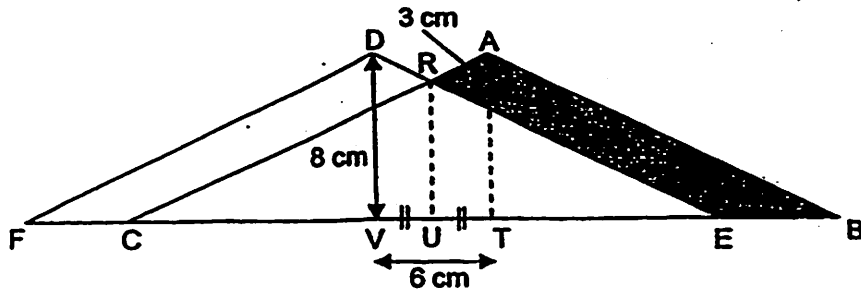
(b) \_\_\_\_\_ [2]

17 Hotel Hollywood and Hotel Broadway had a total of 5200 guests. After  $\frac{3}{4}$  of the guests in Hotel Hollywood and  $\frac{3}{5}$  of the guests in Hotel Broadway checked out, Hotel Broadway had 260 more guests than Hotel Hollywood. How many guests did Hotel Hollywood have at first?

Ans: \_\_\_\_\_ [4]

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- 18 The figure shows two identical isosceles triangles, ABC and DEF overlapping each other. Given that  $DV = 8$  cm,  $AS = 3$  cm,  $VU = UT$  and  $VT = 6$  cm. Find the area of the shaded part, ABER.



Ans: \_\_\_\_\_ [4]

END OF PAPER

# ANSWER SHEET

**EXAM PAPER 2011**

**SCHOOL : NANYANG  
SUBJECT : PRIMARY 5 MATHEMATICS**

**TERM : CA2**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
1	3	1	4	3	3	1	4	4	3	1	4	2	3	2

- 16) 977500      17)  $280 \div 7 - (6 \times 5 + 8) = 2$       18)  $2/9$       19) 0.875
- 20) 1.2kg      21) 1:2      22) 24 apples      23) 7      24) 42
- 25) 20.1%      26)  $1\frac{1}{2}L$       27) 200 pens      28) 0.6cm      29) 45%
- 30) 10 min

**Paper 2**

- 1)  $12/25km + 3/25km = 3/5km$
- 2)  $10.4km = 10400m / 1km = 1000m$   
 $10400m - 1000m = 9400m$   
 $9400m \div 385m \approx 24$   
 $24 + 1 = 25$   
 $25 \times \$0.20 = \$5$   
 $\$2.80 + \$5 = \$7.80$
- 3)  $28cm \times 28cm = 784cm^2$   
 $784cm^2 \rightarrow 7 \text{ units}$   
 $1 \text{ unit} \rightarrow 784cm^2 \div 7 = 112cm^2$   
 Rectangle(2units)  $\rightarrow 112cm^2 + 112cm^2 = 224cm^2$
- 4)  $12 + 20 = 32$   
 $176 \rightarrow 32 \text{ units}$   
 $1 \text{ unit} \rightarrow 176 \div 32 = 5.5$   
 $12 - 10 = 2$   
 $2 \text{ units} \rightarrow 5.5 + 5.5 = 11 \text{ keyboards}$
- 5)  $107\% \rightarrow \$107$   
 $100\% \rightarrow \$107/107 \times 100 = \$100$   
 $80\% \rightarrow \$100$   
 $100\% \rightarrow \$100/80 = \$125$
- 6) a)  $3/3 - 2/3 = 1/3$   
 $1/3 \times 3/10 = 1/10$   
 b)  $2/3 = 20/30$   
 $1/10 = 3/20$   
 $\$2700 \div 30 = \$90 \text{ (1unit)}$   
 $20/30 \rightarrow \$90 \times 20 = \$1800$   
 $3/20 \rightarrow \$90 \times 3 = \$270$   
 $\$1800 + \$270 = \$2070$   
 $\$2700 - \$2070 = \$630$   
 $\$630 - \$225 = \$405$

7) 2 units  $\rightarrow$  20  
 1 unit  $\rightarrow$   $20 \div 2 = 10$   
 $8 + 72 = 80$   
 $10 + 70 = 80$   
 80 units  $\rightarrow$   $10 \times 80 = 800$  pages

9)  $25/100 \times \$480 = \$120$   
 $\$120 \div 2 = \$60$   
 75%  $\rightarrow$   $\$60$   
 100%  $\rightarrow$   $\$60/75 \times 100 = \$80$

11) a)  $\$39$   
 b)  $\$7$

13) 20%  $\rightarrow$  G  
 40%  $\rightarrow$  B  
 $20/100 \times 420 = 84$   
 $420 - 84 = 336$   
 $0.4 = 40\%$  (G)  
 $100\% - 40\% = 60\%$   
 60%  $\rightarrow$  336 (B)  
 40%  $\rightarrow$   $336/60 \times 40 = 224$  (G)  
 $224 - 84 = 140$  girls

15) 4 units + 140  $\rightarrow$  25 units + 700  
 21 units  $\rightarrow$   $700 + 140 = 840$   
 1 unit  $\rightarrow$  40  
 5 units  $\rightarrow$  200  
 $200 \times 50c = \$100$

17) B  $\rightarrow$  5 units (5  $\times$  130)  
 H  $\rightarrow$  8 units  
 5 units + 150 + 8 units  $\rightarrow$  5200  
 13 units + 650  $\rightarrow$  5200  
 13 units  $\rightarrow$   $5200 - 650 = 4550$   
 1 unit  $\rightarrow$  350  
 8 units  $\rightarrow$   $350 \times 8 = 2800$

8)  $3584\text{cm}^2 \div 56\text{cm} = 64\text{cm}$   
 $64\text{cm} \div 2 = 32\text{cm}$   
 $32\text{cm} \times 5 = 160\text{cm}$

10)  $20 \times 6 = 120$   
 $120 - 75 = 45$   
 $45 \div 9 = 5$   
 $20 - 5 = 15$  questions

12) a)  $1190 + 457 = 1647$   
 $1647 \rightarrow$  3 units  
 1 unit  $\rightarrow$  549  
 4 units  $\rightarrow$   $549 \times 4 = 2196$  workers  
 b)  $549 + 457 = 1006$  workers

14) H  $\rightarrow$   $8\text{cm} + 8\text{cm} = 16\text{cm}$   
 $16\text{cm} \rightarrow$  8 units  
 1 unit  $\rightarrow$  2cm  
 (10 units) B  $\rightarrow$   $2\text{cm} \times 10 = 20\text{cm}$   
 (15 units) L  $\rightarrow$   $2\text{cm} \times 15 = 30\text{cm}$   
 $30\text{cm} \times 20\text{cm} \times 16\text{cm} = 9600\text{cm}^3$   
 $30\text{cm} \times 20\text{cm} \times 8\text{cm} = 4800\text{cm}^3$   
 $9600\text{cm}^3 - 4800\text{cm}^3 = 4800\text{cm}^3$   
 $= 4\text{L } 800\text{ml}$   
 1 min  $\rightarrow$  60 secs  
 $60\text{sec} \div 6\text{L} = 10\text{secs}$   
 10 secs  $\rightarrow$  1L  
 1 sec  $\rightarrow$  100ml  
 $4\text{L } 800\text{ml} \rightarrow 10\text{secs} + 10\text{secs} + 10\text{secs}$   
 $+ 10\text{secs} + 1\text{sec} \times 8 = 48\text{secs}$   
 a)  $9600\text{cm}^3$   
 b) 48 seconds

16) a) 1100  
 b) 195600

18)  $8 - 3 = 5$   
 $6 \times 5 = 30$   
 $\frac{1}{2} \times 6 \times 3 = 9$   
 $\frac{1}{2} \times 3 \times 3 = 4\frac{1}{2}$   
 Area of shaded part =  $30 + 9 + 4\frac{1}{2}$   
 $= 43\frac{1}{2}$