



PRIMARY 6 MID-YEAR EXAMINATION 2015

Name : _____ () Date: 18 May 2015

Class : Primary 6 ()

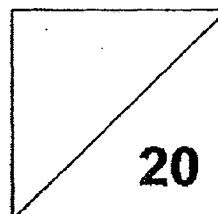
Time: 8.00a.m. – 8.50a.m.

Parent's Signature : _____

MATHEMATICS

PAPER 1

(BOOKLET A)



INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register no.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are NOT allowed to use a calculator.

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 correct oval on the Optical Answer Sheet.

(20 marks)

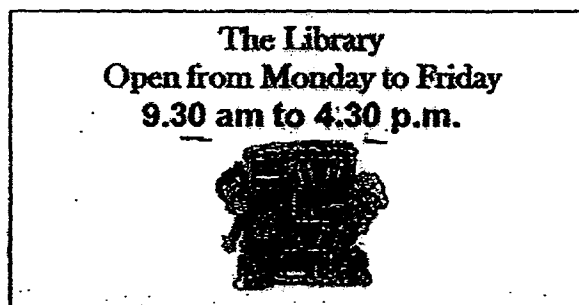
1) Round 4.728 to 2 decimal places.

- (1) 4.80
- (2) 4.73
- (3) 4.72
- (4) 4.70

2) In 924.53, what does the digit 5 stand for?

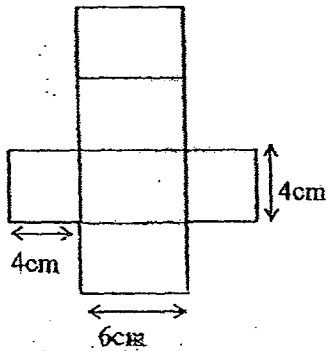
- (1) 5 tenths
- (2) 5 hundredths
- (3) 5 ones
- (4) 5 tens

3) The opening hours of a school library are shown below. How long is the library open each day?



- (1) 6 h
- (2) 6 h 30 min
- (3) 7 h
- (4) 7 h 30 min

- 4) The figure shows the net of a cuboid. Find its volume.

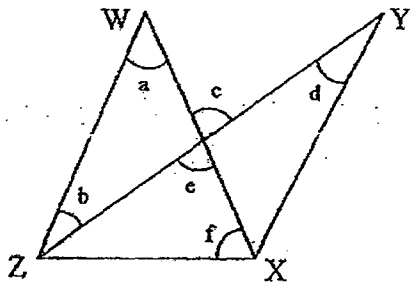


- (1) 64 cm^3
- (2) 96 cm^3
- (3) 144 cm^3
- (4) 216 cm^3

- 5) In a bus of 40 passengers, 24 are women. What is the ratio of the number of men to the number of women?

- (1) 2 : 3
- (2) 2 : 5
- (3) 3 : 2
- (4) 3 : 5

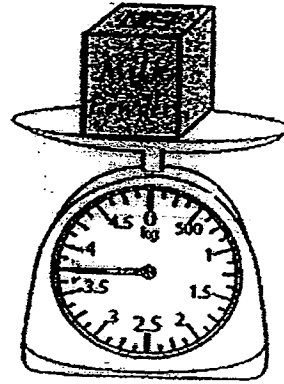
- 6) In the figure shown, WX and YZ are straight lines. Which of the two angles given in the figure are equal?



- (1) $\angle a$ and $\angle f$
- (2) $\angle b$ and $\angle d$
- (3) $\angle c$ and $\angle e$
- (4) $\angle d$ and $\angle e$

- 7) Find the mass of the packet of milk powder.

- (1) 3.7 kg
- (2) 3.8 kg
- (3) 3.65 kg
- (4) 3.75 kg



- 8) Which of the following figures completes the other symmetrical half of the figure?

W		
	H	
		A
	T	

(1)

		W
	H	
A		
	T	

(2)

W		
	H	
		A
	T	

(3)

W		
	H	
		A
	T	

(4)

		W
	H	
A		
	T	

- 9) Zeph receives \$120 each month. He spends \$80 and saves the remainder. What fraction of his expenditure is his savings?

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

(2) $\frac{1}{2}$

(3) $\frac{2}{5}$

(4) $\frac{1}{3}$

- 10) Express 2.5 as a percentage.

(1) 2.5%


(2) 25%

(3) 250%

(4) 2500%

- 11) How much will Mary have to pay for 4 slices of cake during the sale?

SALE!!
20% off from the 3rd slice of cake onwards!



Usual price: \$3.50 per slice

(1) \$14

(2) \$12.60

(3) \$11.90

(4) \$8.40

- 12) Michael bought h twenty-cent stamps and 5 fifty-cent stamps. How much did he spend on the stamps? Give your answer in terms of h .

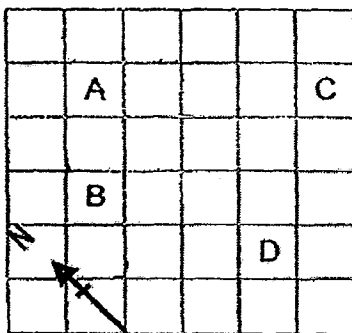
(1) $\$(20h + 250)$

(2) $\$270h$

(3) $\$ \frac{270h}{100}$

(4) $\frac{20h + 250}{100}$

13)



In the diagram on the left, A, B, C and D are four points on the ground. In what direction is C from A?

(1) East

(2) South

(3) South-East

(4) South-West

- 14) $\frac{1}{5}$ of A is the same as $\frac{2}{3}$ of B and A is twice of C. What is the ratio of A : B : C?

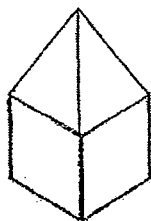
(1) 10 : 3 : 5

(2) 10 : 3 : 20

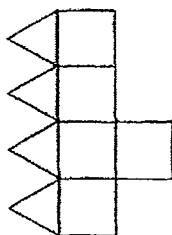
(3) 3 : 10 : 6

(4) 1 : 2 : 2

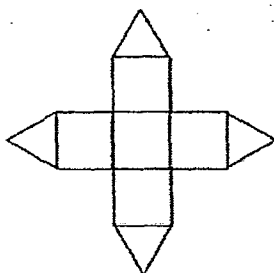
- 15) The figure below shows a solid.



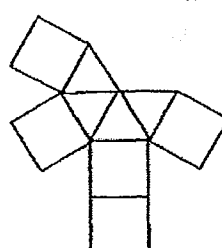
Which of the following nets can be folded to form the solid shown above?



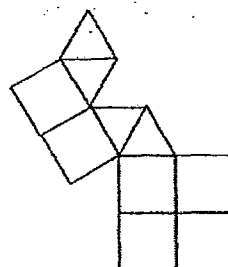
(A)



(B)



(C)



(D)

- (1) A and B only
- (2) B and C only
- (3) A, B and C only
- (4) A, B, C and D

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) Write down all the common multiples of 6 and 9 that is less than 40.

Ans: _____

- 17) Find the value of $\frac{3}{4} + 36$

Give your answer as a fraction in the simplest form.

Ans: _____

- 18) What is the value of $54 - 63 \div 7 + 150 \div 6 \times 60$?

Ans: _____

- 19) Express $\frac{3}{20}$ as a decimal

Ans: _____



PRIMARY 6 MID-YEAR EXAMINATION 2015

Name : _____ () Date: 18 May 2015

Class : Primary 6 ()

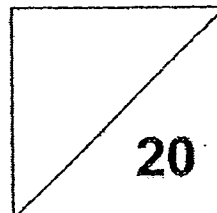
Time: 8.00 a.m. – 8.50 a.m.

Parent's Signature : _____

MATHEMATICS

PAPER 1

(BOOKLET B)



INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register no.
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- 20) Find the value of $2 - \frac{1}{3} + \frac{3}{4}$

Give your answer as a fraction in the simplest form.

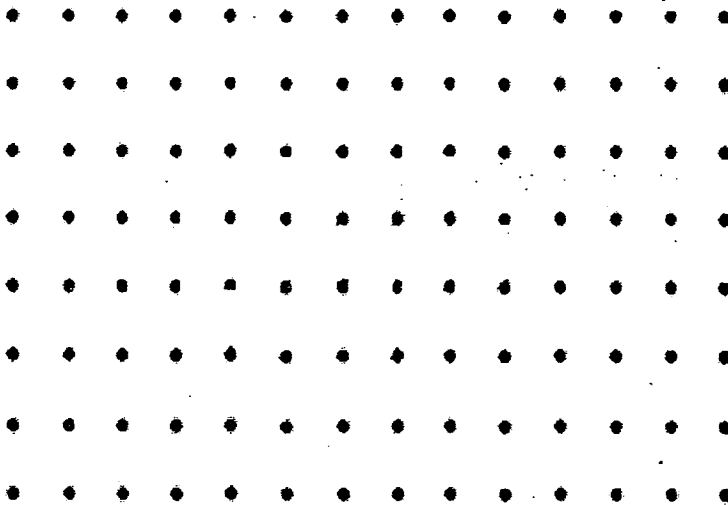
Ans: _____

- 21) The average of 3 numbers is 18. The average of another 2 numbers is 7. What is the average of the 5 numbers?

Ans: _____

- 22) This shape  is used to form a tessellation in the grid below.

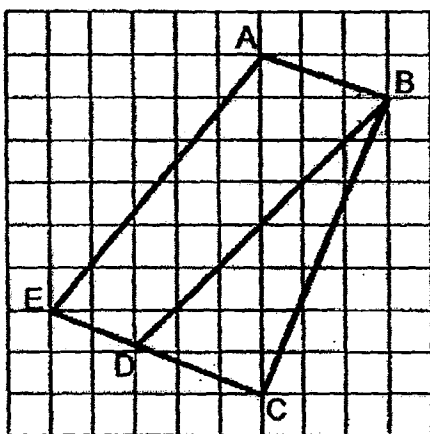
The boundary of the tessellation has been drawn for you. Complete the tessellation by drawing the correct number of unit shape within the boundary.



- 23) Roxann wrote the numbers 1 to 99 on cards for a class bonding activity. How many times did she write the digit 9?

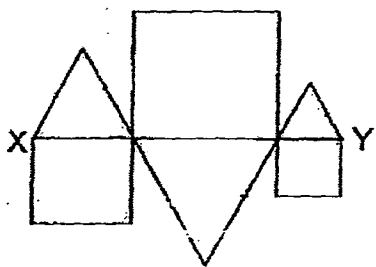
Ans: _____

- 24) Which two lines in the square grid below are perpendicular to each other?



Ans: _____ and _____

- 25) The figure below is formed using 3 squares and 3 equilateral triangles. The length of the straight line XY is 17 cm. Find the perimeter of the figure.



Ans: _____ cm

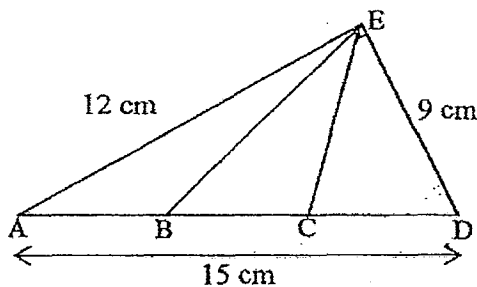
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

- 26) Keith parked his car for 4 hours and 15 minutes. How much did he have to pay for car park charges?

Rate	Parking fees
First $\frac{1}{2}$ hour	\$3.00
Each subsequent 1 hour or part thereof	\$1.50

Ans: \$ _____

- 27) The figure shows a right-angled triangle, ADE. $AB = BC = CD$. What is the area of triangle EBC?



Ans: _____ cm^2

- 28) Gurmit bought a watch at a discount of 20%. Its usual price was \$250 without GST. Find the 7% GST of the discounted price.

Ans: \$ _____

- 29) Shannon had 12 bookmarks. She sold 3 of them at $\$5f$ and the rest at $\$f$ each. How much did she collect in terms of f ?

Ans: \$ _____

- 30) Miss Tan baked some muffins. If she gives 4 to each of her pupils, she will have 6 muffins remaining. If she gives 5 muffins to each of her pupils, there is no remainder. How many muffins did Miss Tan bake?

Ans: _____

- END OF PAPER 1 -



PRIMARY 6 MID-YEAR EXAMINATION 2015

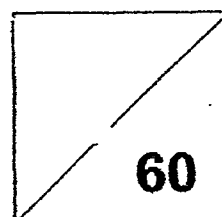
Name : _____ () Date: 18 May 2015

Class : Primary 6 () Time: 10.00a.m. – 11.40a.m.

Parent's Signature : _____

MATHEMATICS

PAPER 2



INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register no.
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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)

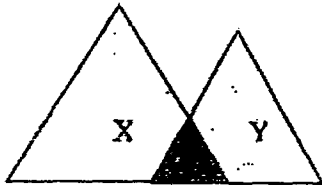
- 1) Express 6h as a percentage of 90 min.

Ans: _____ %

- 2) A wooden plank is 1.8 m long, 0.6 m wide and 2 cm thick. What is its volume?

Ans: _____ cm^3

- 3) The figure below is made up of 2 overlapping triangles, X and Y. The ratio of the shaded area to the area of Triangle X is 3 : 11. The ratio of the shaded area to the area of Triangle Y is 4 : 11. What is the ratio of the shaded area to the total unshaded area of the figure?

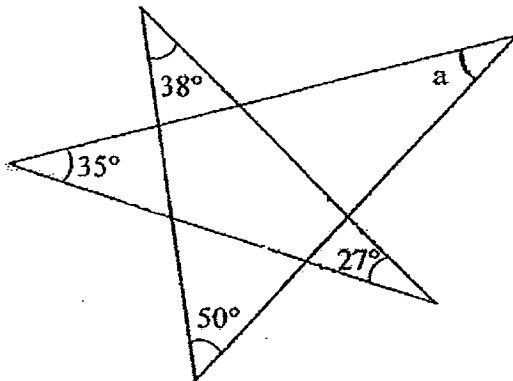


Ans: _____

- 4) Renny is 16 years younger than her cousin. In 4 years' time, their total age will be 48 years. How old is Renny now?

Ans: _____ years old

- 5) The figure, not drawn to scale, is formed using five straight lines. Find $\angle a$.



Ans: _____ $^\circ$

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)

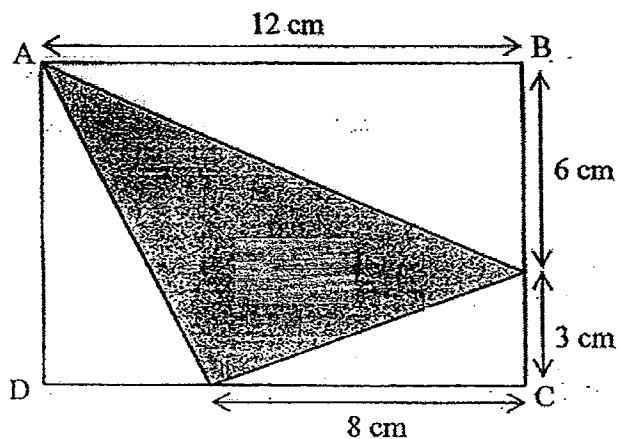
- 6) Shawn had \$90 more than Abigail. If Abigail gave Shawn \$15, Shawn would have thrice as much money as Abigail. How much money did Shawn have at first?

Ans: _____ [3m]

- 7) Four children take 2h to wrap 8 gift boxes. How long will it take 10 children to wrap 20 boxes?

Ans: _____ [3m]

- 8) In the figure below, ABCD is a rectangle. Find the area of the shaded part.



Ans: _____ [3m]

- 9) Rachel needs to make some wrist bands for a fund-raising day. She made $\frac{1}{5}$ of the wrist bands on the first day and 45 on the second day. The number of wrist bands that she made on the second day was $\frac{1}{4}$ more than the number of wrist bands she made on the first day. How many wrist bands does Rachel need to make for the fund-raising day?

Ans: _____ [3m]

- 10) 8 pails of water can fill $\frac{7}{11}$ of a tank. Another 4 pails and 3 jugs are needed to fill the tank completely. How many jugs of water can the tank hold?

Ans: _____ [3m]

- 11) Amy, Bella and Chris shared a box of beads. Amy took $\frac{1}{5}$ of the total number of beads and another 12 beads. Bella took $\frac{1}{3}$ of the remaining beads in the box and another 14 beads. Chris took the last 26 beads in the box. How many beads were there in the box at first?

Ans: _____ [4m]

- 12) Mr Cheng used $\frac{3}{8}$ of a rectangular piece of land to grow bananas and $\frac{8}{15}$ of the remainder to grow mangoes. He had 5600 m^2 of land left. The length of the land was 240 m. Find the breadth of the land.

Ans: _____ [4m]

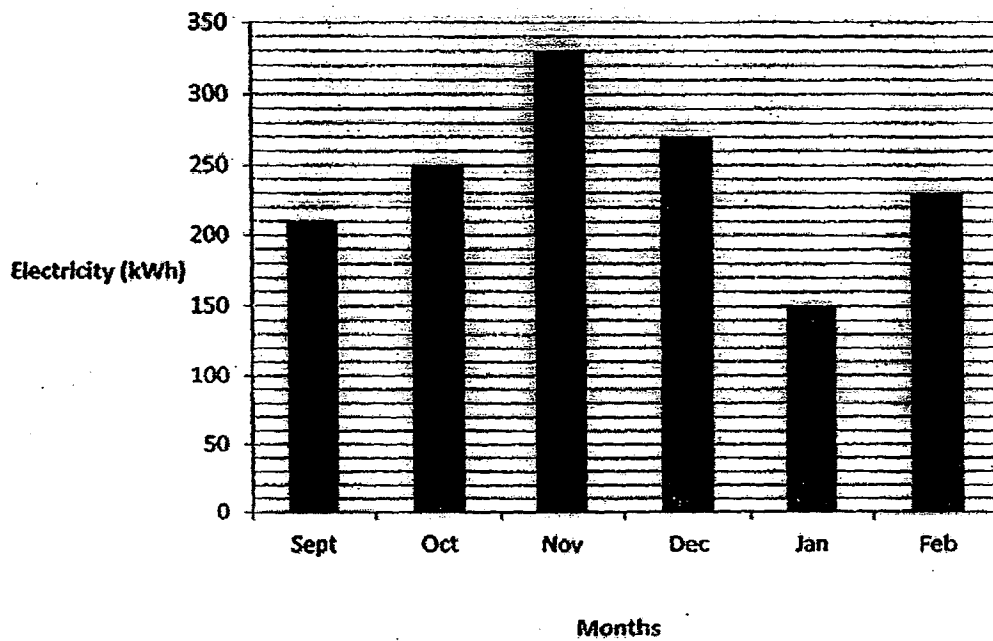
-
- 13) Fenny is f cm tall. Germaine is twice as tall as Fenny. Harriot is 24 cm shorter than Germaine.

- (a) What is the average height of the three girls in terms of f ?
(b) If Fenny is 75 cm tall, what is the difference between Harriot's and Fenny's height?

Ans: (a) _____ [2m]

Ans: (b) _____ [2m]

- 14) The graph below shows Mr Abram's electricity consumption from September to February.



- (a) What was the percentage increase decrease in electricity consumption from October to November?
- (b) If the national average consumption was 360 kWh, in which month was Mr Abram's consumption 75% of the national average?

Ans: (a) _____ [2m]

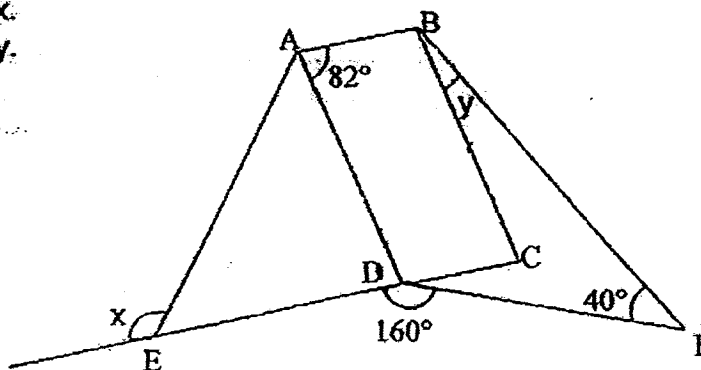
Ans: (b) _____ [2m]

- 15) At a ballet school, 70% of the students were Singaporean students and the rest were foreign students. 75% of the Singaporean students and $\frac{2}{3}$ of the foreign students were female. There were 1200 students at the school. How many more female than male students were there at the ballet school?

Ans: _____ [4m]

- 16) In the diagram below, not drawn to scale, ABCD is a parallelogram. CDE is a straight line and $AD = DE$.

- (a) Find $\angle x$.
(b) Find $\angle y$.



Ans: (a) _____ [2m]

Ans: (b) _____ [3m]

- 17) A bus company charges \$60 for every trip made on time and 10% less for a late trip. Last October, the bus company collected \$16 380. For every 20 trips made, 5 were late trips. How many trips were made on time?

Ans: _____ [5m]

- 18) A coin box contained 20-cent coins and 50-cent coins in the ratio 3 : 2.
When ten 20-cent coins were taken out, exchanged for 50-cent coins and the money returned into the box, the ratio of the number of 20-cent coins to the number of 50-cent coins was 7 : 10.
Find the sum of money in the coin box.

Ans: _____ [5m]

- END OF PAPER 2 -

Tao Nan School
Primary 6 Mid-Year Examination 2015
Paper 1

- 1) 2 2) 1 3) 3 4) 2 5) 1 6) 3 7) 4 8) 1
9) 2 10) 3 11) 2 12) 4 13) 3 14) 1 15) 4

16) 18 & 36

17) $\frac{1}{48}$

18) $54 - 63 \div 7 + 150 + 6 \times 60$

$= 54 - 9 + 150 + 360$

$= 45 + 150 + 360$

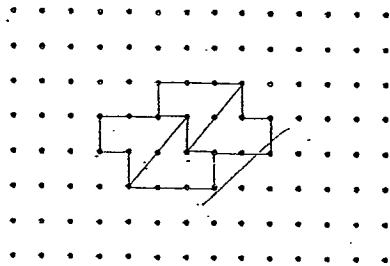
$= 555$

19) 0.15

20) $\frac{2}{5} \div \frac{1}{12}$

21) 13.6

22)



23) 20

24) BC & DC

25) $17 \times 5 = 85$

26) $3 + 4 \times 1.50 = \$9$

27) $\frac{1}{2} \times 12 \times 9 = 54$

$54 \div 3 = 18$

28) $100\% - 20\% = 80\%$

$\frac{80}{100} \times 250 = 200$

$\frac{7}{100} \times 200 = \14

29) \$14f

30) $5 - 1 = 4$

$\frac{6}{1} = 6$

$6 \times 5 = 30$ muffins

Paper 2

1) $(6 \times 60) / 90 \times 100\% = 400\%$

2) $180 \times 60 \times 2 = 21600$

3) Unshaded X : Shaded area : Shaded Y

$$\begin{array}{ccc} 8 & : & 3 \\ & & 4 \\ \hline 32 & : & 12 \\ \text{Ans: } 12 : 53 & & 21 \end{array}$$

4) $48 - 8 = 40$

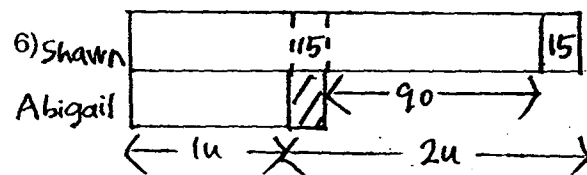
$40 - 16 = 24$

$24 \div 2 = 12$ years old

5) $50^\circ + 38^\circ = 88^\circ$

$35^\circ + 27^\circ = 62^\circ$

Angle a = $180^\circ - 62^\circ - 88^\circ = 30^\circ$



$90 + 15 + 15 = 120$

$120 \div 2 = 60$

$60 + 15 + 90 = \$165$

7) $8g - 2h$

$20g - 20/8 \times 2 = 5h$

4 children -- 5 h

10 children -- $4/10 \times 5 = 2h$

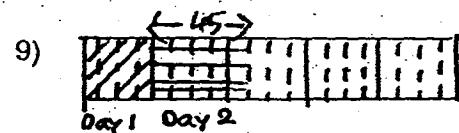
8) $12 \times 9 = 108$

$1/2 \times 12 \times 6 = 36$

$1/2 \times 9 \times 4 = 18$

$1/2 \times 3 \times 8 = 12$

$108 - 36 - 18 - 12 = 42$



$5u - 45$

$20u - 20/5 \times 45 = 180$

10) $7u - 8$ pails
 $4u - 4/7 \times 8 = 32/7 = 4\frac{4}{7}$ pails
 $4\frac{4}{7} - 4 = 4/7$
 $8 + 4\frac{4}{7} = 12\frac{4}{7}$
 $4/7$ pails \rightarrow 3 jugs
 $12\frac{4}{7}$ pails \rightarrow $12\frac{4}{7} \div 4/7 \times 3 = 66$ jugs

11) $2u - 14 + 26 = 40$
 $40/2 \times 3 = 60$
 $4u - 60 + 12 = 72$
 $72 \div 4 = 18$
 $18 \times 5 = 90$ beads

12) $8/15 \times 5/8 = 1/3$
 $3/8 + 1/3 = 17/24$
 $24u - 17u = 7u$
 $7u = 5600$
 $24u = 19200$
 $19200 \div 240 = 80$ m

13a) Total = $f + 2f + 2f - 24 = 5f - 24$
Average = $(5f - 24)/3$
b) Difference = $2f - 24 - f = f - 24 = 75 - 24 = 51$ cm

14a) $330 - 250 = 80$
 $80/250 \times 100\% = 32\%$ increase
b) $100\% - 360$
 $75\% - 75/100 \times 360 = 270$
Ans: December

15)

70%				30%		
F	F	F	M	F	F	M

\leftarrow Singaporean \rightarrow \leftarrow foreign \rightarrow

$17.5\% \times 3 + 20\% = 72.5\%$
 $72.5\% - 27.5\% = 45\%$
 $100\% - 1200$
 $45\% - 45/100 \times 1200 = 540$ students

16a) Angle x = $180^\circ - 49^\circ = 131^\circ$
b) Angle ADC = $180^\circ - 82^\circ = 98^\circ$
Angle CDF = $360^\circ - 82^\circ - 160^\circ - 98^\circ = 20^\circ$
Angle y = $180^\circ - 20^\circ - 40^\circ - 98^\circ = 22^\circ$

17) 100% -- \$60

$$90\% - 90/100 \times 60 = \$54$$

$$20-5 = 15$$

$$15 \times \$60 = \$900$$

$$5 \times \$54 = \$270$$

$$\$900 + \$270 = \$1170$$

$$\$16\,380 \div \$1\,170 = 14$$

$$14 \times 15 = 210 \text{ trips}$$

18)

original

20c : 50c difference

3 : 2 1u

in the end

7 : 10 3u

to get a difference of 6,

14 : 20 6u

hence, original number of 20c coins = $14+10 = 24$

original number of 50c coins = $20-4 = 16$

$$24 \times \$0.20 = \$4.80$$

$$16 \times \$0.50 = \$8$$

$$\$4.80 + \$8 = \$12.80$$