

METHODIST GIRLS' SCHOOL

Founded in 1887



PRIMARY 5 END-OF-YEAR EXAMINATION 2013 MATHEMATICS

PAPER 1 (BOOKLET A)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 5. _____

Date: 8 October 2013

This booklet consists of 7 printed pages including this page.

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 (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

1. In 807 325, what does the digit 7 stand for?

- (1) 7 ones
- (2) 7 tens
- (3) 7 hundreds
- (4) 7 thousands

2. The length of the whiteboard in the classroom is about _____.

- (1) 1 m
- (2) 3.5 m
- (3) 10 m
- (4) 35 m

3. What is the difference between 50 tens and 5 tenths?

- (1) 45
- (2) 49.5
- (3) 450
- (4) 499.5

(Go on to the next page)

4. Which of the following has a value that is different from the rest?

(1) $\frac{35}{9} +$

(2) $\frac{5}{3} \times \frac{1}{3}$

(3) $\frac{4}{3} - \frac{2}{9}$

(4) $\frac{1}{3} + \frac{2}{9}$

5. $\frac{1}{6} + \frac{\square}{18} = \frac{5}{9}$. The missing number in the box is _____.

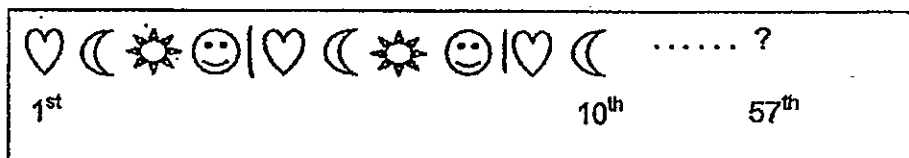
(1) 5

(2) 2

(3) 7

(4) 10

6. Jane used stickers of four different shapes to make a pattern as shown below. The first 10 stickers are shown below. Which sticker was in the 57th position?



(1)

(2)

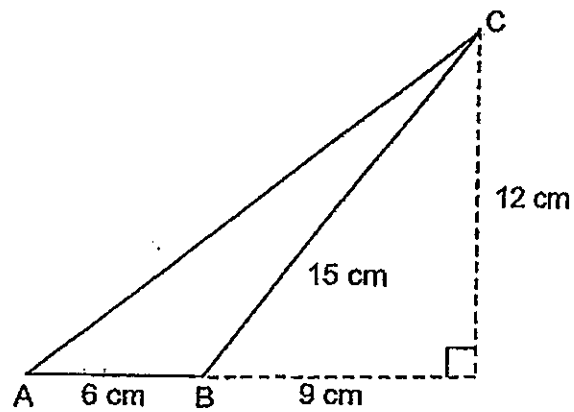
(3)

(4)

7. How many grams are there in 20.07 kg?

- (1) 2 007 g
- (2) 2 070 g
- (3) 20 070 g
- (4) 20 700 g

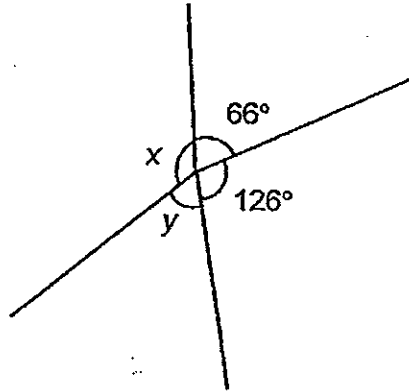
8. What is the area of triangle ABC as shown in the figure?



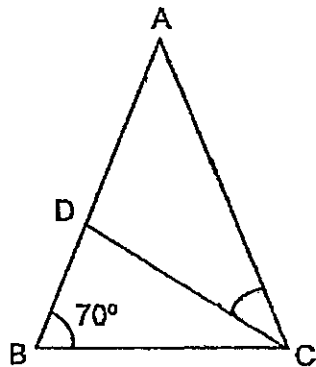
- (1) 36 cm^2
- (2) 45 cm^2
- (3) 54 cm^2
- (4) 90 cm^2

(Go on to the next page)

9. In the figure below, $\angle x$ is twice of $\angle y$. Find $\angle y$.



- (1) 54°
 (2) 56°
 (3) 112°
 (4) 168°
10. In the figure below, $\triangle ABC$ and $\triangle ADC$ are isosceles triangles. $AB = AC$, $AD = DC$ and $\angle ABC = 70^\circ$. Find $\angle ACD$.



- (1) 35°
 (2) 40°
 (3) 50°
 (4) 70°

11. $\frac{4}{5} + \frac{1}{10} = \square \times 4 + \frac{1}{2}$

(1) $\frac{1}{10}$

(2) $\frac{1}{50}$

(3) $\frac{1}{100}$

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

12. The pupils in a class are grouped equally into Team X and Team Y.
In Team X, the ratio of the number of boys to the number of girls is 3 : 1.
In Team Y, the ratio of the number of boys to the number of girls is 1 : 7.
What is the ratio of the number of boys to the number of girls in the class?

(1) 1 : 1

(2) 3 : 7

(3) 1 : 2

(4) 7 : 9

13. The average mass of 5 girls is 27 kg. When Bianca joins the group of girls, the average mass of the group increases to 33 kg. What is Bianca's mass?

(1) 30 kg

(2) 36 kg

(3) 49 kg

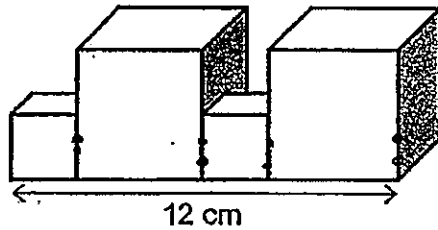
(4) 63 kg

(Go on to the next page)

14. There are some beads in a box. 40% of them were blue and the rest were red. Devi used all of the blue beads and 25% of the red beads to make a bracelet. What percentage of the beads was used to make the bracelet?

- (1) 50%
- (2) 55%
- (3) 65%
- (4) 85%

15. The figure below is made up of 2 similar big cubes and 2 similar small cubes. The ratio of the length of the big cube to the length of the small cube is 2 : 1. Find the volume of the figure.



- (1) 18 cm^3
- (2) 72 cm^3
- (3) 144 cm^3
- (4) 216 cm^3

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PRIMARY 5 END-OF-YEAR EXAMINATION 2013 MATHEMATICS

PAPER 1 (BOOKLET B)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 5. _____

Date: 8 October 2013

Paper 1 Booklet A	/ 20
Paper 1 Booklet B	/ 20
Paper 2	/ 60
TOTAL	/ 100

This booklet consists of 8 printed pages including this page.

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. Round off 648 379 to the nearest hundred.

Ans: _____

17. Write the following number in numeral.

Two million, five hundred thousand and fourteen.

Ans: _____

18. Jaya spent $\frac{1}{2}$ of her money on books and $\frac{3}{8}$ of her money on food.

What fraction of her money was left?

Ans: _____

(Go on to the next page)

19. Study the pattern.

$$\frac{1}{3}, \frac{3}{9}, \frac{5}{15}, \boxed{\phantom{\frac{7}{21}}}, \frac{9}{27}$$

What is the missing fraction in the box?

Ans: _____

20. 4 friends shared $\frac{5}{6}$ of a cake. What fraction of the cake did each friend get?

Ans: _____

21. Express the value of $2 + \frac{1}{4} + \frac{1}{50}$ as a decimal.

Ans: _____

(Go on to the next page)

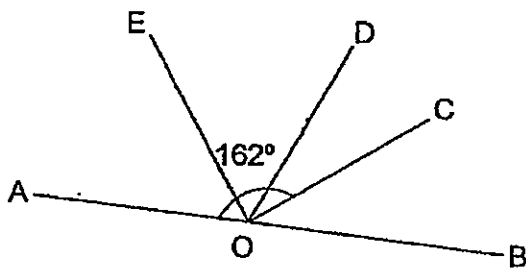
22. The average of 2 numbers is 729. The difference between the two numbers is 376. What is the smaller number?

Ans: _____

23. Express 0.5% as a decimal.

Ans: _____

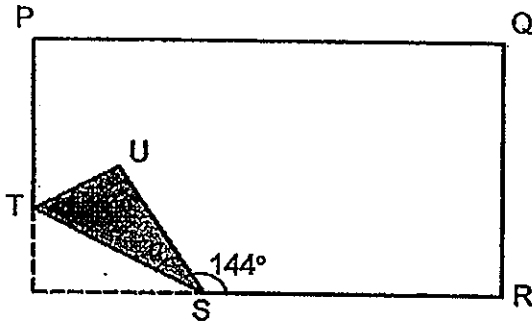
24. In the figure, AOB is a straight line. EO is perpendicular to OC and $\angle AOC = 162^\circ$. Find $\angle AOE$.



Ans: _____^o

(Go on to the next page)

25. In the figure below, PQRU is a piece of rectangular paper folded along ST. Given that $\angle USR = 144^\circ$. Find $\angle a$.



Ans: _____^o

(Go on to the next page)

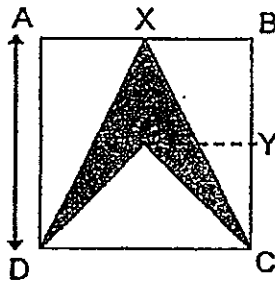
Questions 26 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

26. Jenny made some paper cranes for her friends. Each day, she made 5 more cranes than the day before. She made 33 cranes on the sixth day. How many cranes did Jenny make on the first day?

Ans: _____

27. ABCD is a square. X and Y are the mid-points of the square. Find the area of the shaded part of the figure.



Ans: _____ cm^2

(Go on to the next page)

28. The mass of a bag with some books is 3.407 g. The mass of the books is 1.8 kg more than the mass of the bag. Find the mass of the books. Give your answer correct to 2 decimal places.

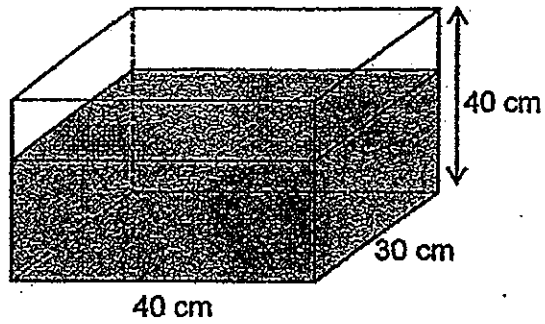
Ans: _____ kg

29. James paid \$84 for a pair of shoes after a 40% discount. Find the original price of the pair of shoes.

Ans: \$ _____

(Go on to the next page)

30. A rectangular tank measuring 40 cm by 30 cm by 40 cm is $\frac{5}{8}$ -filled with water. How much more water is needed to fill the tank completely?



Ans: _____ l

End of Booklet B

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PRIMARY 5 END-OF-YEAR EXAMINATION 2013 MATHEMATICS

PAPER 2

Total Time: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.

Answer all questions.

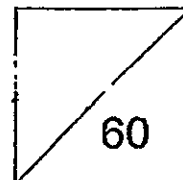
Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

Name: _____ ()

Class: Primary 5. _____

Date: 8 October 2013



This booklet consists of 14 printed pages including this page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

1. Faith donated \$220 of her money to charity and spent $\frac{3}{7}$ of her remaining money on some books. She had \$176 left. How much money did Faith have at first?

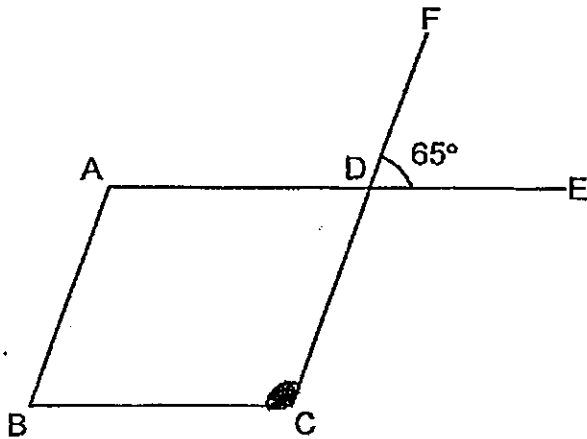
Ans: \$ _____

2. The average height of Tom and Mark is 1.54 m. Tom is 15 cm taller than Mark. What is Tom's height?

Ans: _____ cm

(Go on to the next page)

3. In the figure below, ABCD is a rhombus. $\angle FDE = 65^\circ$. Find $\angle BCD$.



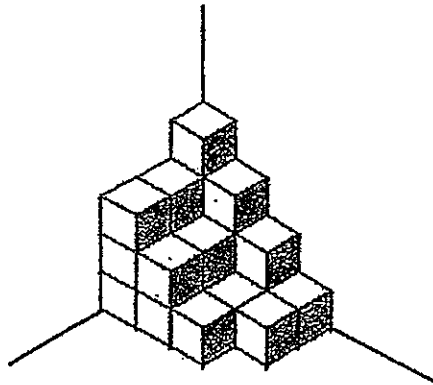
Ans: _____^o

4. Mrs Tan bought an oven which cost \$550. In addition, she had to pay 7% GST. How much did she pay for the oven altogether?

Ans: \$ _____

(Go on to the next page)

5. John used some 1-cm cubes to make the figure as shown in the diagram below. How many more cubes are needed to make it into a bigger cube measuring 4 cm by 4 cm by 4 cm?



Ans: _____

(Go on to the next page)

For questions 6 to 18, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [] at the end of each question or part-question.

(50 marks)

6. Amy and Betty went shopping with an equal amount of money each. Amy spent \$56 and Betty spent \$17. In the end, Betty had 4 times as much money left as Amy. How much money did Betty have at first?

Ans: _____ [3]

7. There are altogether 494 pears and oranges at a fruit stall. $\frac{2}{5}$ of the number of pears is equal to $\frac{1}{4}$ of the number of oranges. Find the number of oranges at the fruit stall.

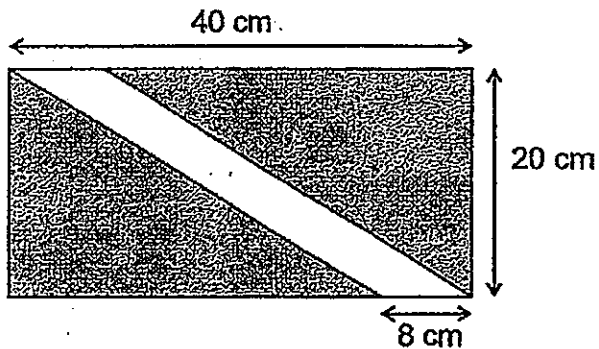
Ans: _____ [3]

(Go on to the next page)

8. Five girls bought three identical presents for three of their teachers and they shared the cost of the presents equally among them.
Given that each present cost \$25.75, how much did each girl pay?

Ans: _____ [3]

9. Find the area of the unshaded part in the figure shown below.



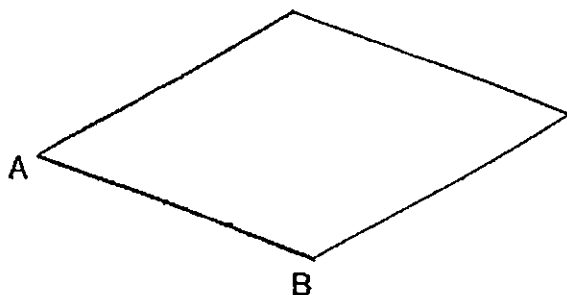
Ans: _____ [3]

(Go on to the next page)

10. Mrs Lim bought 5 packets of cookies from a shop. The average mass of 2 of the packets was 280 g. The total mass of the other 3 packets was 960 g. Find the average mass of the 5 packets of cookies.

Ans: _____ [3]

11. Draw a rhombus ABCD in which $AB = 4$ cm and $\angle ABC = 130^\circ$.
The line AB has been drawn for you. Label the diagram clearly. [3]



(Go on to the next page)

12. At a party, there were 810 red and pink balloons. $\frac{5}{9}$ of the balloons were heart-shaped and the rest were round. Of the heart-shaped balloons, $\frac{2}{5}$ of them were pink and the rest were red. Of the round balloons, 120 of them were pink and the rest were red.

(a) How many red heart-shaped balloons were there?

(b) What fraction of the balloons was pink?
Give your answer in the simplest form.

Ans: (a) _____ [2]

(b) _____ [2]

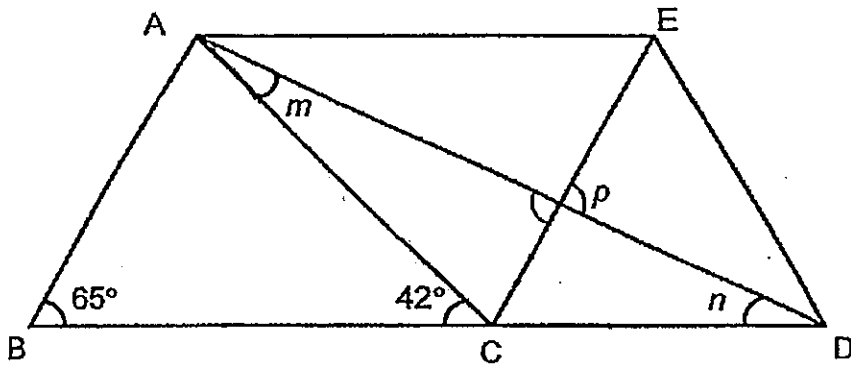
(Go on to the next page)

13. The figure below is made up of a parallelogram ABCE and a triangle CDE.

$\angle ABC = 65^\circ$ and the ratio of $\angle m$ to $\angle n$ is 3 : 4. Find

(a) $\angle m$

(b) $\angle p$

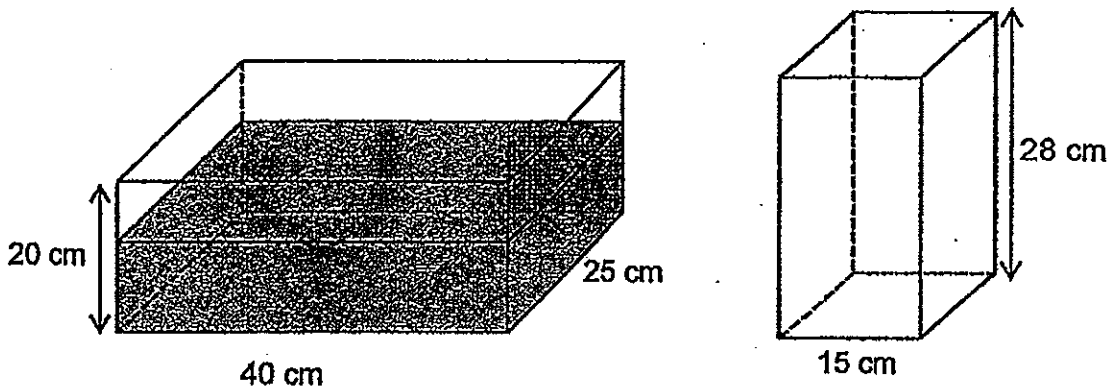


Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

14. A rectangular tank measuring 40 cm long, 25 cm wide and 20 cm high is $\frac{3}{5}$ -filled with water. The water is then poured into a smaller tank with a square base of side 15 cm and a height of 28 cm until it is full. How much water is left in the rectangular tank? Give your answer in litres and millilitres.



Ans: _____ [4]

(Go on to the next page)

15. Study the pattern shown below.



Figure 1



Figure 2

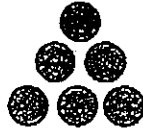


Figure 3

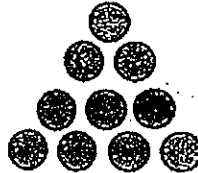


Figure 4

(a) Complete the table for Figure 5. [1]

Figure	1	2	3	4	5
Total number of dots	1	3	6	10	

(b) How many dots are there in Figure 10?

(c) Which figure number has 120 dots?

Ans: (b) _____ [2]

(c) _____ [2]

(Go on to the next page)

16. There were $\frac{3}{7}$ as many women as men at a funfair. Each woman bought 10 booklets of coupons. Each man bought 40% as many booklets of coupons as each woman. Altogether, 2 320 booklets of coupons were sold.
- (a) How many men were at the funfair?
- (b) How many booklets were sold to the women?

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

17. There were 200 children at a concert.

The ratio of the number of adults to the number of boys was 10 : 1.

The ratio of the number of adults to the number of girls was 5 : 2.

During the interval, 10% of the adults and $\frac{3}{4}$ of the girls left the concert.

- (a) How many people were there at the concert at first?
- (b) What is the ratio of the number of adults to the number of boys to the number of girls in the end?

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

18. Mrs Lim had a box of buttons. 40% of the buttons were red, 25% of the remainder were blue and the rest of the buttons were yellow. She had 270 yellow buttons.
- (a) How many red buttons were there in the box at first?
- (b) If Mrs Lim added in another 40 red buttons into the box, what percentage of the buttons would be red?

Ans: (a) _____ [2]

(b) _____ [3]

End of Paper

$$6. 3u - 56 - 17 = 39$$

$$4u = 52$$

$$52 + 17 = 69$$

$$7. 13u = 494$$

$$1u = 38$$

$$8u = 304$$

$$8. 25.75 \times 3 = 77.25$$

$$77.25 \div 5 = 15.45$$

$$9. 40 \times 20 = 800$$

$$\frac{1}{2} \times (40 - 8) \times 20 = 320$$

$$\frac{1}{2} \times (40 - 8) \times 20 = 320$$

$$800 - (320 \times 2) = 160$$

$$10. 280 \times 2 = 560$$

$$560 + 960 = 1520$$

$$1520 \div 5 = 304$$

11.

$$12. A. 1u = 810 \div 9 = 90$$

$$3u = 270$$

$$B. 2u = 180$$

$$180 + 120 = 300$$

$$300 / 810 = 10 / 27$$

$$13. A. 180 - 73 - 65 = 42$$

$$42 \div 7 = 6$$

$$6 \times 3 = 18$$

$$B. 180 - 18 - 73 = 89$$

$$14. \frac{3}{5} \times 20 \times 70 \times 25 = 12000$$

$$15 \times 15 \times 28 = 6300$$

$$12000 - 6300 = 5700$$

$$5L700ml$$

$$15. A. 15 + 6 + 7 + 8 + 9 + 10 = 55$$

$$B. 15$$

$$16. A. 3 \times 10 + 7 \times 4 = 58$$

$$2320 \div 58 = 40$$

$$40 \times 7 = 280$$

$$B. 280 \div 7 = 40$$

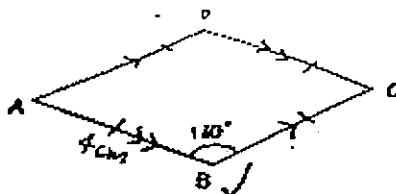
$$40 \times 3 \times 10 = 1200$$

$$17. A) G:A:B$$

$$10:1$$

$$2:5$$

$$\text{-----}$$
$$20:50:5$$



$$200 \div 25 = 8$$
$$200 + (8 \times 50) = 600$$

$$B. 90/100 \times 400 = 360$$
$$8 \times 20 = 160$$
$$\frac{1}{4} \times 160 = 40$$
$$5 \times 8 = 40$$

18. A. 75% ---- 270
25% --- 90
100% --- 360

$$60\% \text{ ---- } 360$$
$$40\% \text{ --- } 240$$

B. 100% ---- 600
 $600 + 40 = 640$
 $280/640 \times 100\% = 43.75\%$

