

YEAR 9

NATIONAL TRIAL EXAMINATION PAPERS
(NTEP)

2009

NUMERACY
NON-CALCULATOR

Please write below in capital letters your first name and your last name.

FIRST NAME: _____

LAST NAME: _____

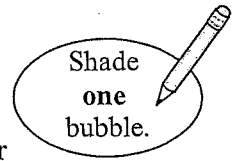
DATE OF BIRTH: ____ / ____ / ____

Students are to complete this test in 40 minutes:

0:40

YEAR 9 – NATIONAL TRIAL EXAMINATION PAPER – 2009

NUMERACY



1. The picture graph represents the number of pizzas sold at Pizza Master over two weeks.



If a total of 160 pizzas were sold in these two weeks, how many pizzas were sold during the second week?

- 5 32 60 100

2. The number of movies watched last school holidays by a group of 5 people is recorded in the following stem and leaf plot.

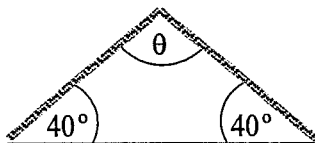
Stem	Leaf
1	4 6
2	2 5 8

KEY	
1 4	= 14 movies

What is the average number of movies watched per person?

- 21 20 19 18

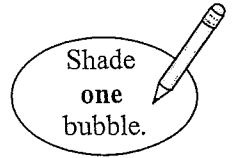
3. A roof is pitched so that the angle it makes with the horizontal is 40° .



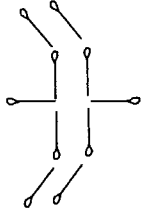
What is the value of θ ?

- 50° 70° 80° 100°

4. Kate is using matchsticks to make a pattern of shapes as shown.

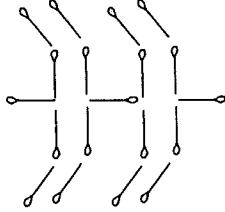


Shape 1



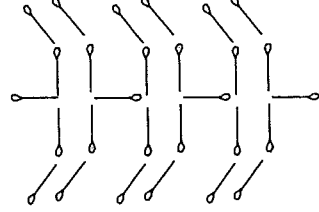
10 matchsticks

Shape 2



19 matchsticks

Shape 3



28 matchsticks

How many matchsticks will she need for shape 4?

36



37



38



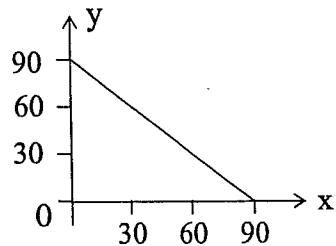
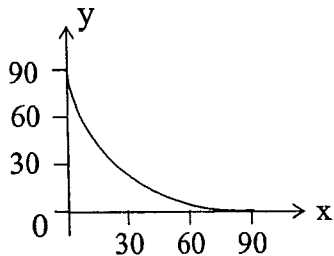
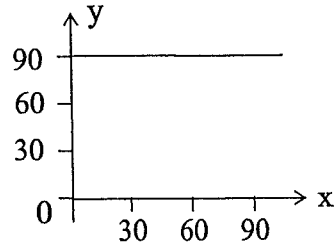
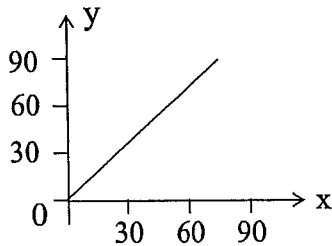
39



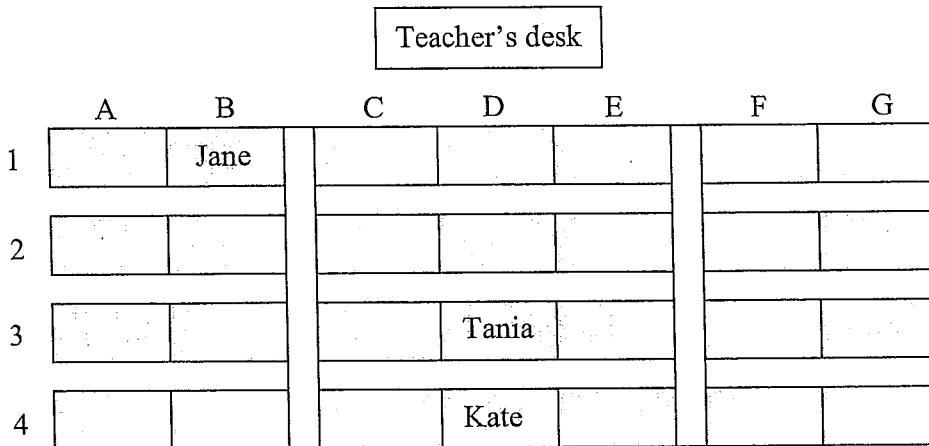
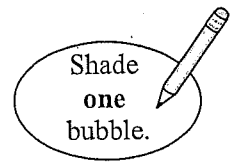
5. The sum of two complementary angles is 90° .
The table below shows various pairs of complementary angles of sizes x and y .

x	20°	40°	60°	80°
y	70°	50°	30°	10°

Which of the graphs below best represents the relationship between x and y ?



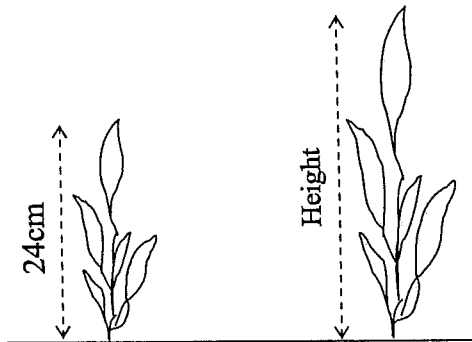
6. The diagram shows a classroom setting.



Kate has been told to move to a desk in front of Tania and behind Jane. In which of the following seats could Kate be seated?

- A3 B4 C2 D1
-

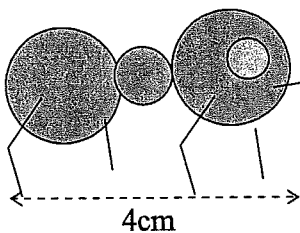
7. These two plants are drawn to the same scale.



What is the best estimate for the height of the tallest plant?

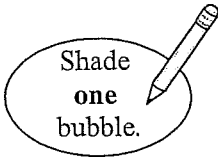
- 38cm 36cm
-
- 34cm 32cm
-

8. The real length of this ant is 6mm, in the scale drawing it is 4cm long.



What is the scale for this drawing?

- 1 cm represents 3mm
- 1 cm represents 4mm
- 2 cm represents 3mm
- 3 cm represents 2mm



9. There are 40 cars of the same model in a car rental company. 8 of them are white. James is to rent a car from this company, what is the chance that he will get a white car?

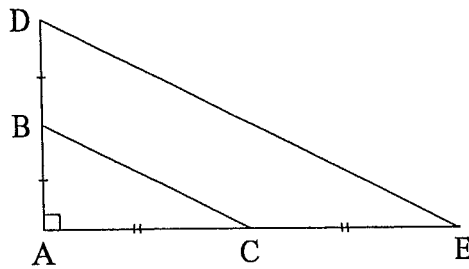
1 in 2

1 in 4

1 in 5

1 in 6

10. ABC and ADE are right angled triangles.



The area of triangle ABC is

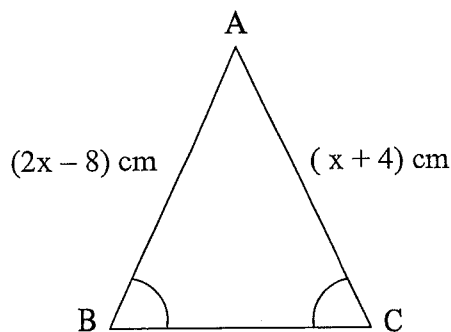
half of the area of triangle ADE.

a third of the area of triangle ADE.

a quarter of the area of triangle ADE.

twice the area of triangle ADE.

11. ABC is an isosceles triangle.



What is the value of x?

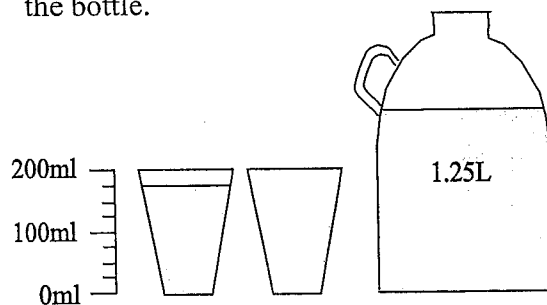
12

8

6

4

12. Jennifer poured some milk into two empty cups from a full bottle of milk. The picture shows the amount of milk in the cup and the remaining amount in the bottle.



What was the amount of milk in the bottle when it was full?

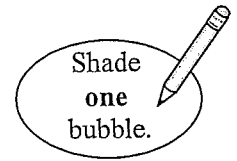
1625ml

1510ml

1450ml

1425ml

13. In a gymnastic competition, the winner is the highest scorer.



The results of the competition are listed below.

Christine scored more than Louise, Dimitra scored less than Louise, Dimitra scored more than Jessica and Jessica scored more than Hannah.

The winner of this competition is:

Louise Christine Dimitra Jessica Hannah

14. Which one of the following expressions is equivalent to $5(4p + 7)$?

$9p + 7$ $20p + 7$ $20p + 35$ $55p$

- 15.

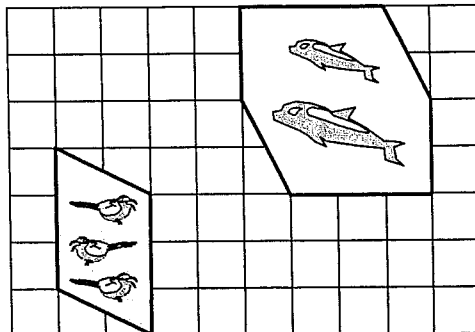


Mary bought this dress on sale.

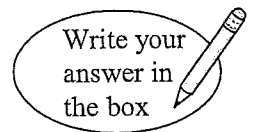
What percentage discount did Mary receive?

60% 40%
30% 20%

- 16.




The area of the wild bird enclosure on the grid is 54m^2 .

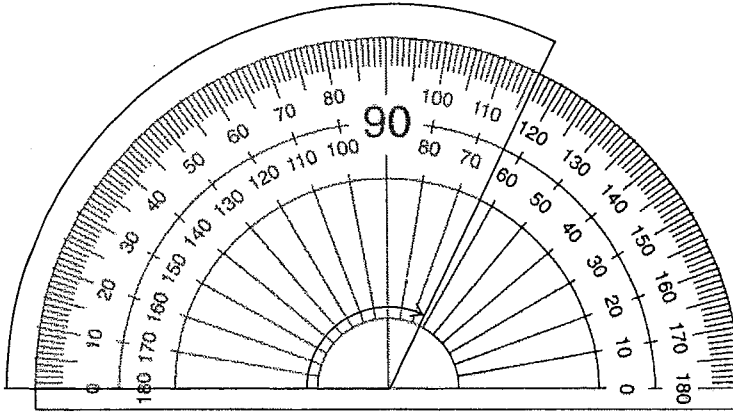


What is the area of the dolphin pool?

m^2


17. What is the size of the angle marked by the arrow in the shaded part of the protractor?

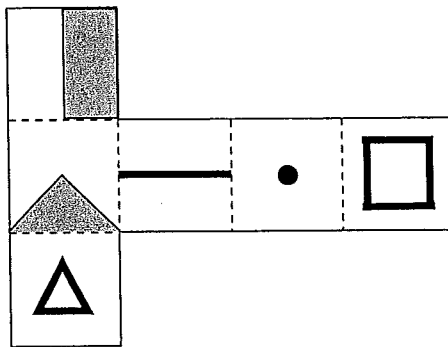
Write your answer in the box 



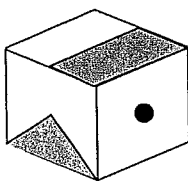
degrees

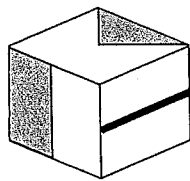
- 18.

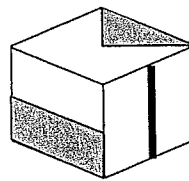
Shade one bubble. 

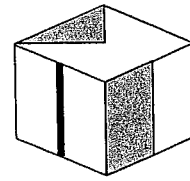


Which of the following solids can be formed by folding the net shown?









19. What is the answer to $0.84 \div 0.6$?

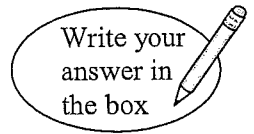
0.14

1.4

14

140

20. Peter surveyed a class of 25 students about their favourite sports. The table shows the results of his survey.



Favourite sport	Number of students
Netball	4
Volley ball	5
Swimming	7
Tennis	?
Total 25	

What percentage of the students chose tennis?

 %

21. David travels 240km in $3\frac{1}{2}$ hours. He travels at an average speed of 60km per hour for the first $2\frac{1}{2}$ hours.

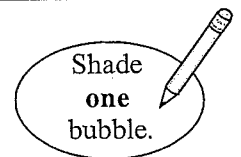
What distance did he travel in the last hour?

 km

22. Find the value of p in the equation $8p - 8 = 3p + 12$.

23. Anthony won 80 free movie rental vouchers. He gave some of them to his friend Peter.

If Anthony still had four times as many vouchers as he gave Peter, how many vouchers did he give Peter?



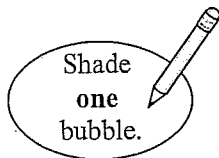
10

16

20

40

24. On a TV channel, Amanda noticed that after every 40 minutes of any show there are 10 minutes of advertisements.

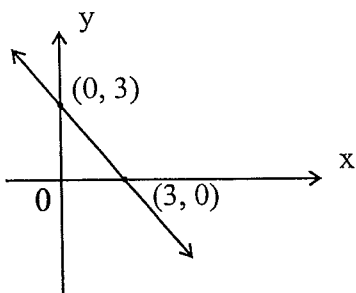


What is the probability that when Amanda is turning on this TV channel, she will see an advertisement at the instant she tuned in?

- 0.2 0.25 0.4 0.8

25.

x	0	3	4
y	3	0	-1



Kevin uses the table to produce the straight line.

Which of the following points also lie on this line?

- (5, -3) (7, -5)
 (-1, 5) (-2, 5)

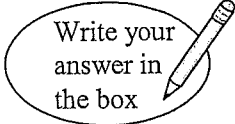
26. Which of the following groups is arranged from smallest to largest?

- $4^4, 5^3, 2^7$ $2^7, 5^3, 4^4$ $5^3, 2^7, 4^4$ $4^4, 2^7, 5^3$

27. Find the value of $1 + 2a^2$ when $a = -3$.

- 37 19 -17 -35

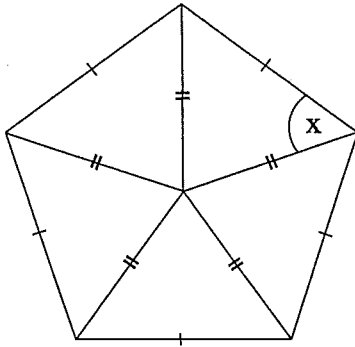
28. 60% of the students of Highview College are girls and 30% of the girls play netball.




What percentage of the students in the school are girls who play netball?

%

29.



Write your answer in the box 

Fiona made the regular pentagon shown using five identical isosceles triangles.

What is the size of the angle marked x ?

degrees

30. The profit P and the cost C in dollars made by a publishing company on a book are related by the following inequation

$$P > 3C - 4$$


Which pair of values satisfies the above inequation?

$P = 4$ and $C = 3$

$P = 11$ and $C = 4$

$P = 12$ and $C = 7$

$P = 13$ and $C = 6$

Shade **one** bubble. 

31. The average number of chocolate cakes sold in a cake shop is 80 from Monday to Saturday inclusive and 90 over the entire week.

How many cakes did the shop sell on Sunday?

10

85

100

150

32. Grace is 40 years old. Her older daughter Jessica is x years younger than her, and 5 years older than her younger daughter Vanessa.

How old is Vanessa?

$35 - x$

$x - 35$

$45 - x$

$x - 45$

END OF TEST