PENPLUS TRIAL SERIES
STD 7 - END -TERM 3 ·

PENPLUS
NPS-3

MATHEMATICS

Time: 2Hrs

READ THESE INSTRUCTIONS CAREFULLY

1. *Use only an ordinary pencil.*
2. *Make sure that you have written on the answer sheet:-*
   (I) *YOUR NAME*   (II) *NAME OF YOUR SCHOOL*
3. *For each question show the correct answer by drawing line in the brackets in which the letter you have choosen is written.*

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1. Write eleven million twenty one thousands two hundred and eleven in figures.
   - A. 11210211
   - B. 11021211
   - C. 11201211
   - D. 11021112

2. What is the total value of digit 7 in the number 845.274?
   - A. Hundredths
   - B. Tenths
   - C. 0.27
   - D. 0.07

3. What is the value of:- $20 + 8 \times 4 - 56 \div 8$
   - A. 45
   - B. 7
   - C. 105
   - D. 70

4. Work out the value of:-
   $$^3/_{10} \times (¼ + ½ \times 20)$$
   - A. $2^3/_{40}$
   - B. $11^2/_5$
   - C. $3^3/_{40}$
   - D. 11¼

5. What is the square root of 0.2116?
   - A. 4.6
   - B. 46
   - C. 0.0046
   - D. 0.46

6. Work out:
   $$\frac{0.16 \times 5.4}{1.08}$$
   - A. 80
   - B. 0.8
   - C. 0.08
   - D. 8

7. Work out: $2^5/_{12} - 3^7/_9 + 4^1/_3 =$
   - A. $3^{35}/_{36}$
   - B. $4^{25}/_{36}$
   - C. $2^{35}/_{36}$
   - D. $4^{35}/_{36}$

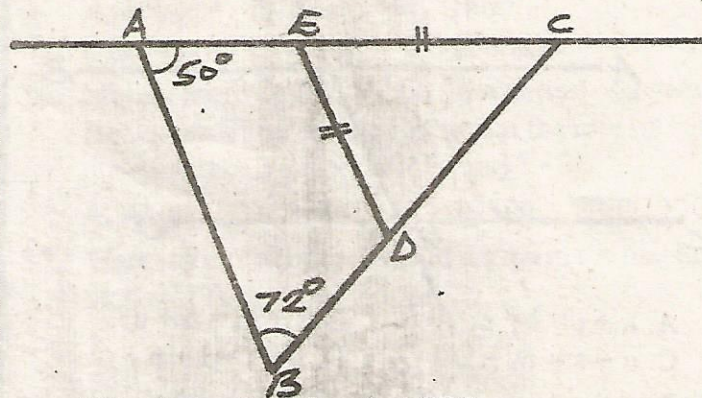8. What is the missing number in the pattern below?
   123, 234, 345, _____ 567
   - A. 456
   - B. 356
   - C. 234
   - D. 678

9. A farmer had 60 sheep and 40 goats on his farm. If he sold 20% of his sheep and increased his goat by 40%. How many animals has he now?
   - A. 128
   - B. 160
   - C. 104
   - D. 100

10. In the figure below lines **EC** and **ED** are equal. Angle CAB = 50^0 and angle ABC = 72^0

   What is the size of angle AED?
   - A. 64^0
   - B. 122^0
   - C. 135^0
   - D. 116^0

11. During a birthday party, $^2/_3$ of the children present were boys. If there were 60 girls, how many boys were present?
   - A. 40
   - B. 120
   - C. 180
   - D. 90

12. Which is the correct order of writing the fractions $^3/_5$, $^2/_3$, $^5/_8$ and $^7/_{11}$ from the largest to the smallest?
   - A. $^3/_5$, $^5/_8$, $^7/_{11}$, $^2/_3$
   - B. $^2/_3$, $^5/_8$, $^7/_{11}$, $^3/_5$
   - C. $^2/_3$, $^7/_{11}$, $^3/_5$, $^5/_8$
   - D. $^2/_3$, $^7/_{11}$, $^5/_8$, $^3/_5$

13. What is the value of:-
   $$\frac{4p + 3n}{2t}$$
   If $n = 4$, $p = 2n + 1$, $t = p + 3$
   - A. 2
   - B. 36
   - C. 15
   - D. 48

14. Write 12½% as a fraction in its simplest form.
   - A. $^{125}/_{100}$
   - B. $^5/_4$
   - C. $^1/_8$
   - D. $^5/_{40}$

15. What is the value of 15 ÷ 11 correct to 3 decimal places?
   - A. 1.363
   - B. 1.364
   - C. 1.36
   - D. 1.366

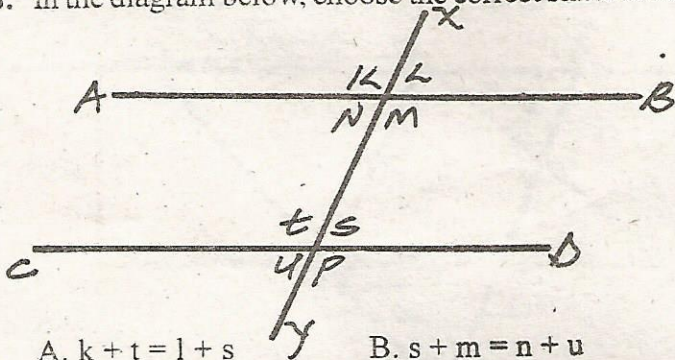16. Find the value of x in the figure below.
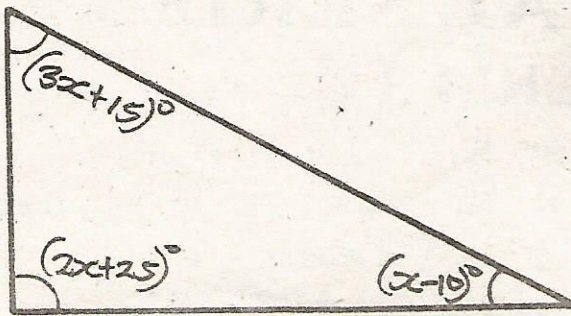
A. 90⁰   B. 65⁰   C. 25⁰   D. 20⁰

17. A new car costs Sh 975,000. After 6 years its value decreased by 43%. Find its value after the 6 years?
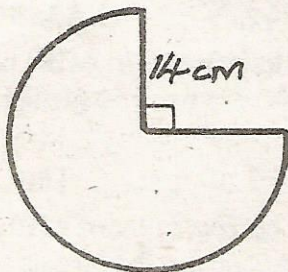
A. 555750   B. 419250
C. 292500   D. 750555

18. In the diagram below, choose the correct statement.

A. $k + t = l + s$ B. $s + m = n + u$
C. $u + s = m + k$ D. $n + t = l + p$
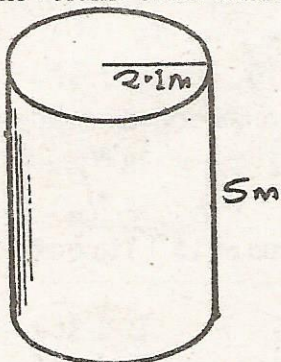
19. Find the distance round the figure below.

A. 84 cm   B. 66 cm   C. 94 cm   D. 47 cm

20. The scale of a map is 1:100,000. What is the real length of a road represented on the map by 6 cm?

A. 60 km   B. 6 km   C. 600 m   D. 60 m

21. What is the volume of the tank drawn below? (Take $\Pi = {}^{22}/_7$)

A. 693 m³

B. 27.72 m³

C. 93.72 m³

D. 69.3 m³

22. A square piece of land has an area of 15.21 m². What is the sum of two of its side in metres?

A. 7.8m   B. 3.9 m
C. 15.6 m   D. 10.08 m

23. A train left Kisumu at 1845 h and arrived at Nairobi at 0540 h. How long did the journey take?
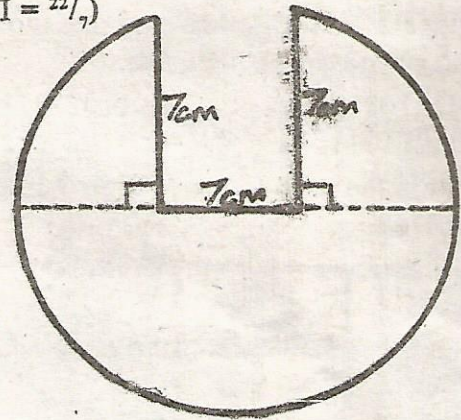
A. 13 hrs 5 min   B. 24 hrs 25 min
C. 12 hrs 25min   D. 10 hrs 55 min

24. The mean of 6 boys is 54kg. After the addition of the 7th boy the mean becomes 55 kg. What is the weight of the 7th boy?

A. 55 kg   B. 324 kg
C. 61 kg   D. 385 kg

25. What is the perimeter of the figure below?
(Take $\Pi = {}^{22}/_7$)

A. 55 cm   B. 76 cm
C. 69 cm   D. 109 cm

26.

A				
60	B			
120	80	C		
180	120	60	D	
270	240	165	120	E

The fare for a pupil is half that of an adult. Three teachers and ten pupils travelled from town A to D. How much did they pay for the fare?

A. 2340   B. 1170
C. 2880   D. 1440

27. The temperature of water in a container was 18⁰C. The container was placed on the fire until the water boiled. What was the rise in temperature?
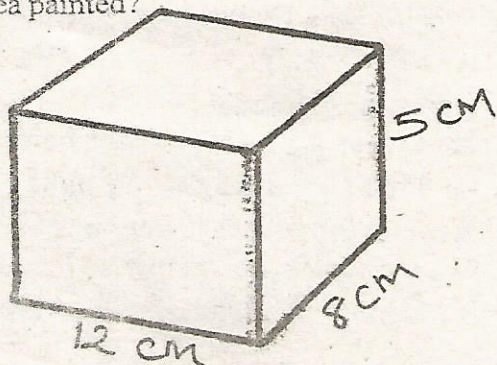
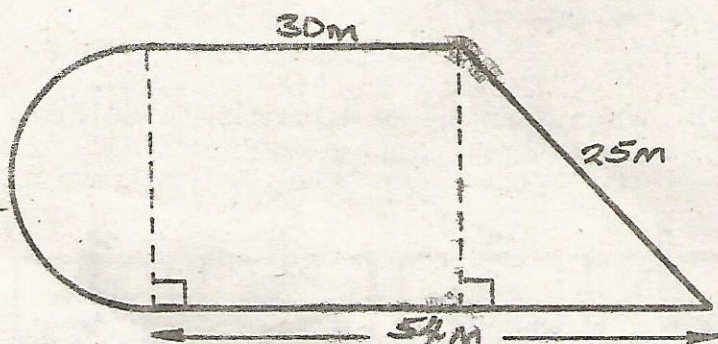A. 82⁰   B. 118⁰   C. 100⁰   D. 72⁰

28. Remove the brackets and simplify.

$\frac{3}{4}(12g + 4) + {}^4/_5(5g + 15)$

A. 13g + 64   B. 13g + 15
C. 56g   D. 15g + 12

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29. The figure below is painted on all sides. Find the surface area painted?

A. 280 cm³ B. 240 cm²
C. 184 cm² D. 280 cm²

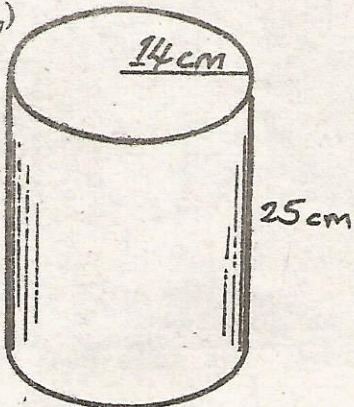30. What is the perimeter of the figure below?
(Take $\Pi = {}^{22}/_7$)

A. 131 m B. 116 m
C. 120 m D. 127 m

31. Solve

$$\sqrt{1{}^{24}/_{25}} + \sqrt{5{}^{1}/_{16}}$$

A. $3{}^{17}/_{20}$ B. $2{}^{13}/_{20}$
C. ${}^{13}/_{20}$ D. $3{}^{13}/_{20}$

32. A sales person receives a commission of 5% of the value of his sales. How much commission would he get on sales of 75000?

A. 3750 B. 78750
C. 37500 D. 11250

33. What is the surface area of the open cylinder below?
(Take $\Pi = {}^{22}/_7$)

A. 3432 cm² B. 2816 cm²
C. 1716 cm² D. 2332 cm²

34. The hire purchase price for a gas cooker is Sh 5870. Naima paid a deposit of Sh 2670 and paid the balance in 8 monthly installments. How much was each instalment?

A. 3200 B. 2270 C. 5470 D. 400

35. What is the area of the shaded part in the figure below?
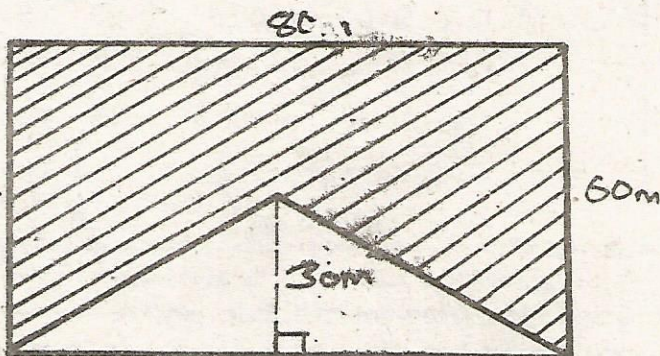
A. 4800m² B. 1800m²
C. 3600m² D. 1200m²

36. Moipei borrowed Sh 15000 for a period of 2 years. He was charged simple interest at the rate of 16% p.a How much interest did he pay?

A. 4800 B. 5480 C. 19800 D. 3300

37. What is the area of the shaded region in the diagram below? (Take $\Pi = {}^{22}/_7$)
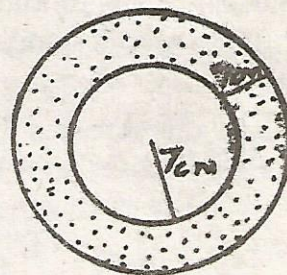
A. 616 cm² B. 154 cm²
C. 562 cm² D. 462 cm²

38. Construct triangle KTM whose side KT = 7cm, KM = 8cm and angle MKT = 50⁰. What is the measure of angle KMT?

A. 55⁰ B. 33⁰ C. 57⁰ D. 123⁰

39. Mwangi bought the following items:
    3 loaves of bread @ Sh 22
    6 kg of maize flour @ Sh 18
    1kg salt @ Sh 16
    2½ kg sugar @ Sh 45
    2kg margarine @ Sh 145
If he gave the shopkeeper Sh 1000, what balance did he get?
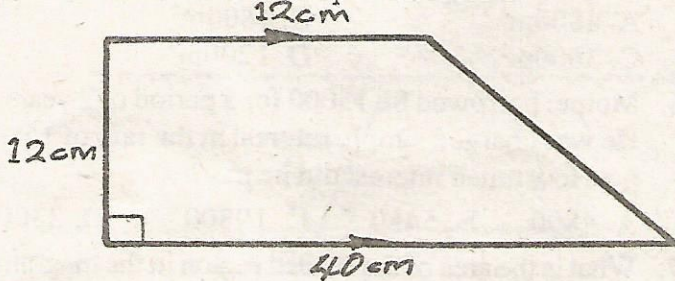
A. 407.5 B. 592.5 C. 447.5 D. 507.5

40.

Letter (Limit of weight 2kg)	Sh	Cts
Upto 20g	21	00
Over 20 g upto 50 g	25	00
Over 50 g upto 100 g	28	00
Over 100 g upto 250 g	42	00
Over 250 g upto 500 g	70	00
Over 500 g upto 1kg	113	00
Over 1kg upto 2kg	160	00

Murugi posted 3 letters whose masses are 12 g, 67 g and 750 g. How much did she pay?

A. 38.00   B. 162.00   C. 166.00   D. 209.00

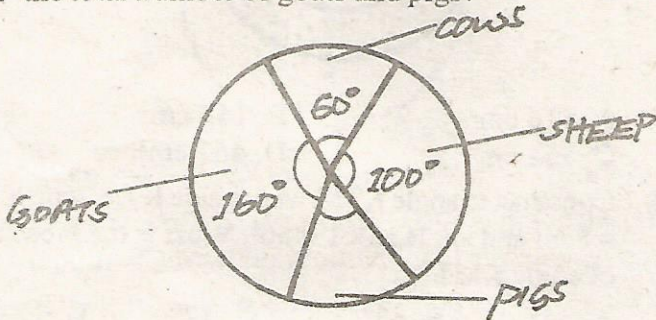**41.** Find the area of the trapezium below.

A. 60 cm²   B. 312 cm²
C. 120 cm²   D. 800 cm²

42. I think of a number. If I double the number and add 5 to it. I get 17. What was the number?

A. 6   B. 15   C. 14   D. 12

43. The pie chart below shows the number of animals in a farm. There are 72 cows in the farm. What is the total number of goats and pigs?

A. 48⁰   B. 240⁰   C. 192⁰   D. 432⁰

44. Work out: ¾ ÷ ¼ of 6 x ⁷/₈

A. 3⁷/₃₂   B. 15¾   C. 1¼   D. ⁷/₁₆

45. Work out:

Tonnes	kg	g
15	0	0
−	469	735

A. 14 t 530 kg 265g   B. 14t 530 kg 365g
C. 14t 531kg 265g   D. 14t 529kg 265g

46. What is ¾ as a percentage?
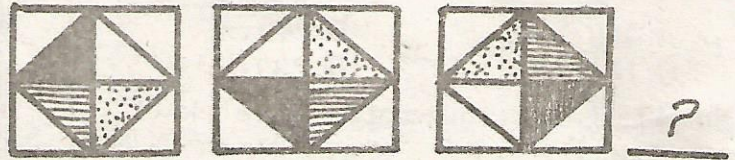A. 40%   B. ³⁰/₄%   C. 75%   D. 30%

47. A tank of volume 850,000 cm3 is filled with water. How many litres does the tank hold?
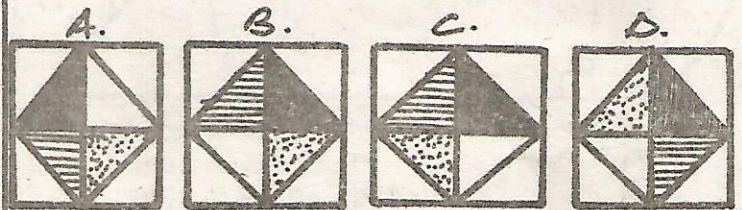A. 8500 *l*   B. 850 *l*   C. 0.85 *l*   D. 85 *l*

48. A cyclist can cover a journey of 24 km in one hour. What distance can he cover in ²/₃ hours?
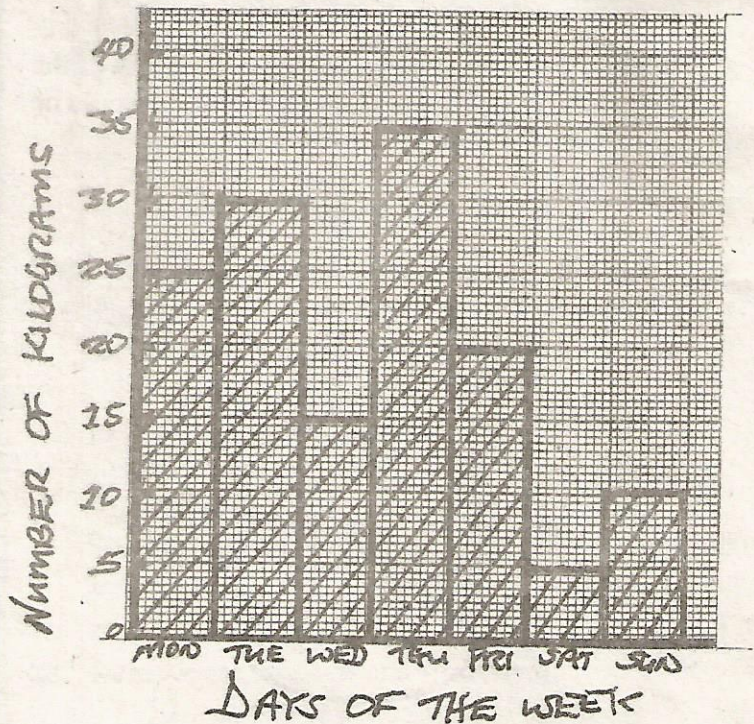A. 32 km   B. 48km   C. 16 km   D. 8km

49.

Which of the following shapes below should be used to complete the pattern above?

50. The graph below shows the number of kg of sugar sold during a certain week by a shopkeeper.

If a kilogram of sugar cost Sh 64. How much did the shopkeeper get from the sales that week?

A. 140   B. 8960   C. 7680   D. 7088