Test 01

- Time Limit(Suggested Time) : 8 Minutes

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INSTRUCTIONS

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2. There are 10 multiple choice questions for each exam. The suggested time for each exam is 8(eight) minutes. Please be advised that this is a suggested time. The time may vary depending on the ability of the student.

3. There are 4 possible choices for each question, **A**, **B**, **C** or **D**. There is **ONLY 1** correct answer for each question. Please circle the most appropriate answer.

4. Make sure to spend an equal amount of time on each question. Try not to exceed an acceptable amount of time for each question.

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1   A pensioner's electricity bill is $134.80. She is given a 2.5% discount.
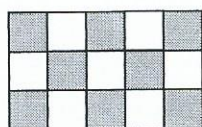
How much must the pensioner actually pay?

A $131.43
B $131.64
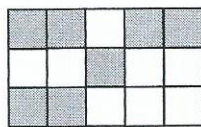C $131.85
D $132.45

2   Find the area of this shape.

2 cm
↔
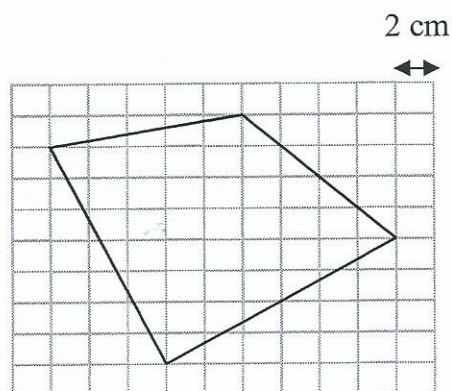
A   102 cm^2
B   78 cm^2
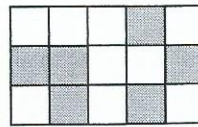C   9 cm^2
D   156 cm^2

3   Fractional parts of the rectangles below have been shaded.
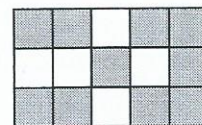

Rectangle 1   Rectangle 2   Rectangle 3   Rectangle 4

Which rectangle best represents the decimal 0.533?

A   Rectangle 1
B   Rectangle 2
C   Rectangle 3
D   Rectangle 4

4   Two walls were constructed by 6 men in 5 hours.
How long would it take 5 men to construct one wall, working at the same rate?

     A   2 hours
     B   2 and a half hours
     C   3 hours
     D   3 and a half hours

5   A prism has been formed by joining the two cubes as shown.
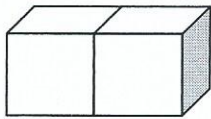
If each cube has a volume of 1 cm^3, what will be the surface area of the prism if 6 cubes are joined end to end?

     A   24 cm^2
     B   30 cm^2
     C   26 cm^2
     D   36 cm^2

6   What is the sum of all the numbers containing the numeral two from 1 to 100?

     A   681
     B   672
     C   693
     D   691

7   What will be the surface area of the cube below after the corners of the cube are removed?
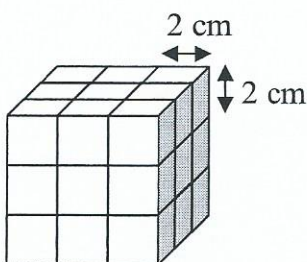
     A   200 cm^2
     B   184 cm^2
     C   240 cm^2
     D   216 cm^2

**8**   If February 25th was a Monday and March 4th was a Monday, what year was it?

      A   1984
      B   1992
      C   1976
      D   1997

9   Emily drinks 0.8 L of milk a day and spends $24 on milk per month. Josephina spends $9.90 on milk per month and drinks 0.3 L of milk a day. Who spends less on the price of milk per litre each month and by how much? (Assume one month = 30 days.)

      A   Emily by $0.10
      B   Josephina by $0.10
      C   Both are equal
      D   Not enough information

Question 10 uses the following Venn diagram.

The boys at Smith's Scout School have four distinct characteristics. They either

- have black or brown hair
- are short or tall
- wear glasses or no glasses
- are chubby or skinny
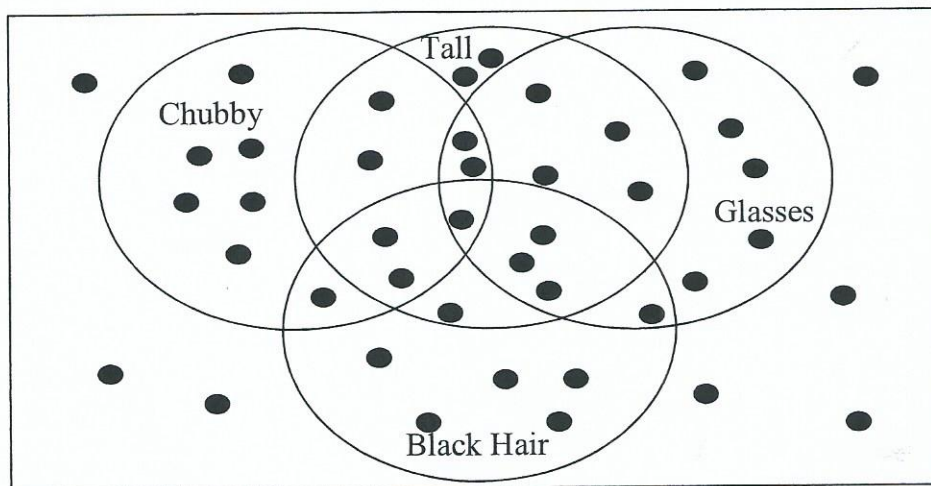
Each ● represents two boys.

10   How many boys are chubby, tall and have brown hair?

      A   4
      B   12
      C   8
      D   16

END OF TEST 01

Test 02

- Time Limit(Suggested Time) : 8 Minutes

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1   Jenny plants mango trees in an orchard of length 21 m. The trees are planted 3 m apart. If 56 mango trees are planted in total, how many rows are there?

A   4
B   2
C   8
D   7

2   Jo's and Kim's backpacks together have a mass of 11.2 kg, while Kim's and Pat's weigh 12.5 kg. Gina's pack is half a kilogram more than Jo's, and together their packs weigh 13.1 kg.

Whose backpack has the greatest mass?

A   Pat's
B   Kim's
C   Jo's
D   Gina's

3   A pet shop sells dogs and birds. If there is a total of 170 legs altogether and there are twice as many dogs as birds, how many birds are there?

A   20
B   34
C   17
D   11

4   Sarah bought a pair of jeans that were 25% off the normal price of $95 and a jacket that was 40% off the normal price of $120.

How much change did she receive from $150?

A $85
B $6.75
C $78.25
D $11.75

5   If it takes 5 people 32 days to build 1 house, how many days will it take 8 people to build 2 houses?

    A   64
    B   52
    C   40
    D   36

6   If $a \bullet b = 8 \times (a + b)^2$ then $11 \bullet 2 =$

    A   169
    B   990
    C   1859
    D   1352

7   What is the result of the following equation?

$$\sqrt{\frac{22}{32} - \frac{1}{8}}$$

    A   0.875
    B $\dfrac{9}{16}$
    C   0.75
    D $\dfrac{21}{24}$

8   Which number in this sequence is not correct?

    2,   5,   9,   17,   26
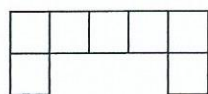
    A   2
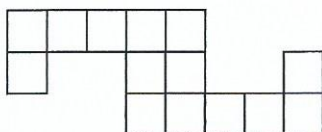   **B**   5
    C   9
    D   17

9   It takes Tap A 10 minutes to fill a 60 L tank. Tap B on the other hand takes 15 minutes to fill the same tank. How long would it take for them to fill the same tank together?

     A   5 minutes
     B   12.5 minutes
     C   6 minutes
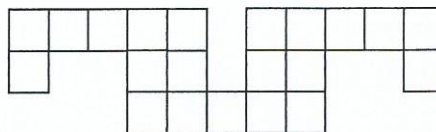   **D**   8 minutes

10

     5 cm long   8 cm long   11 cm long

Following the pattern above, how many of the 5 cm long shapes would you need to make a shape that is 2 m in length?

     A   65
     B   20
   **C**   15
     D   66

END OF TEST 02

Test 03

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1   The total price of 2 kg of carrots and 3 kg of onions is $12.30. The total price of 2 kg of carrots and 5 kg of onions is $18.10. What is the price of one kilogram of carrots?

    A $1.80
    B $2.30
    C $2.70
    D $2.90

2   Vivian received a discount of 20% on a $500 game console. After this discount, she used a voucher which gave her a further 10% discount. Her friend said that if she got a 30% discount on the console from the beginning, she would have spent less. Is her friend right? What would have been the difference if there was any?

    A   Her friend was right. She would have saved $10.
    B   Her friend was wrong. She would have spent $6 more.
    C   Her friend was right. She would have saved $4.
    D   Her friend was wrong. There was no difference.

3   Kate has ruled squares on a square piece of paper. She wants to shade it so it has as many lines of symmetry as possible.
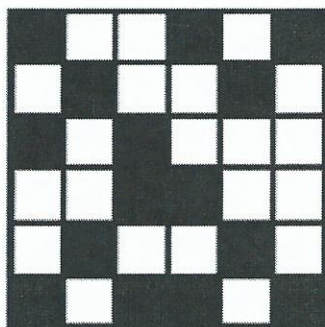
How many more squares must Kate shade?

    A   3
    B   4
    C   5
    D   6

4   Three different sized circles are aligned next to each other as shown below. Find the distance around the three circles. (Use $\pi = \dfrac{22}{7}$)
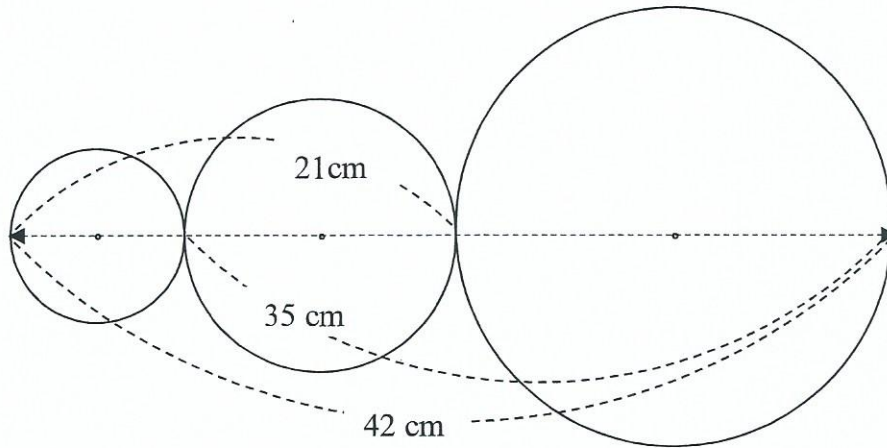
A   89 cm

B   66 cm

C   120 cm

D   132 cm

5   The temperature at the Blue Mountains was 12°C at midday, but began falling at a rate of 3°C every 3 hours.

     What time would it first hit below the freezing point?

A   1 am

B   12 am

C   12:01 am

D   1:01 am

6   Steve starts his afternoon bike ride by going north for 2 km. He turns 90 degrees to his left and rides for 1 km, before making a 90 degree turn to his right and riding for another 1 km. However, the uphill slope is too steep so he turns left and rides for 3 km. After 3 km, he reaches a park that he can cross in a straight line to get back to his starting point. If he were to take this route, what distance would he travel from this point back to his starting point?

    A   9 km
    B   7 km
    C   5 km
    D   3 km

Question 7 refers to the following graph.

The pie graph shows Year 6 students' favourite fiction genres. Each student only picked one favourite.
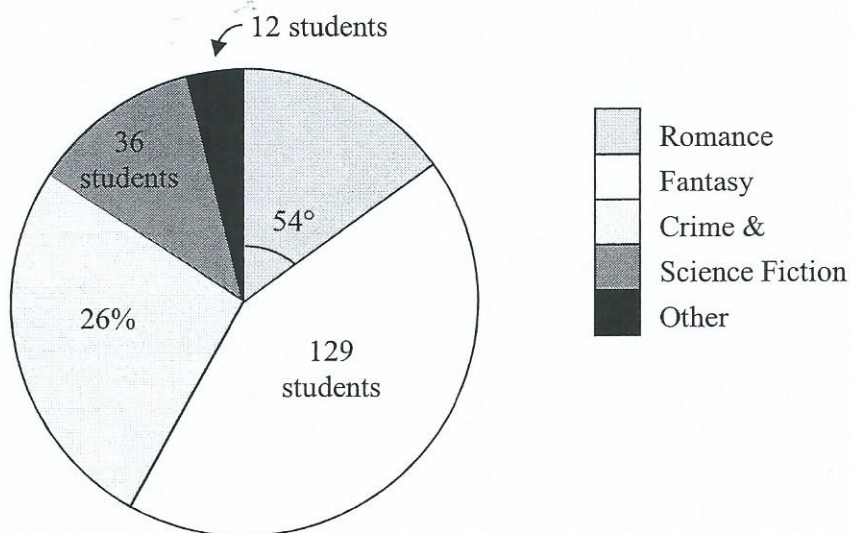
7   What percentage of Year 6 students like fantasy novels the best?

    A   36%
    B   38%
    C   41%
    D   43%

8   Homebush station and Redfern station are 60 km apart. Redfern station and Central station are 30 km apart. Sim caught the 8:45 am train from Homebush to Redfern where he waited 5 minutes to catch another train from Redfern to Central. He waited at Central for 3.25 hours before making the exact same trip back. What time did Sim return to Homebush?
(Assume that a train travels at 180 km/h.)

     A   1:00 pm
     B   12:35 pm
     C   1:05 pm
     D   1:10 pm

Question 9 uses the following information.

Jodi walks to school every morning. If she walks at a speed of 65 m/min, it takes her 20 minutes to get to school and she is 2 minutes early. If she walks at a speed of 50 m/min, she will be 4 minutes late.

9   How long does Jodi take to walk to school in order to be on time?

     A   18 minutes
     B   24 minutes
     C   20 minutes
     D   22 minutes

10   How many internal angles are there in the net of a pentagonal prism?

     A   20
     B   26
     C   30
     D   25

END OF TEST 03