

5 Year 5 Term 2 Week 5 Homework

5.1 Topic 1 — Fraction and Percentages

1. I spent $\frac{1}{3}$ my money on exercise books and $\frac{1}{2}$ of what remained on pens. That left me with \$18. How much did I start shopping with?

2. If four forks cost \$49.40 and we need nine of them. How much more would we need to pay?

3. A tank is $\frac{3}{8}$ full of water. It would take another 45 litres of water to fill it. How many litres of water does the tank hold altogether?

4. Find the number of fifths in one and four fifths.

5. How many times can $3\frac{1}{2}$ be subtracted from 28?

6. What fraction is a fortnight of a year?

5.2 Topic 2 — Money

1. Find the cost of 15 metres of material at \$8.45 per metre.

2. Find the cost of 65 litres of petrol at \$1.29 per litre.

3. How many twenty cent coins in \$84?

4. Price of a PC game is \$85.00, and discount 25%. How much will it cost?

5. On emptying her piggy bank, Helen found twelve 5 cents coins, six 20 cents coins, nine 50 cents coins and seven 2 dollar coins. How much more would she need to make \$35?

6. Exercise books are sold at a rate of 35 for \$4.50. How many can be bought for \$27?

7. We saved \$75 at the 30%-off-sale. How much have we spent?

5.3 Topic 3 — Measurement (Length)

• **Metric Prefixes:**

Prefix	Symbol	Meaning
mega	M	1,000,000
kilo	k	1,000
centi	c	$\frac{1}{100}$
milli	m	$\frac{1}{1000}$
micro	μ	$\frac{1}{1,000,000}$

• **Table of Units of Length:**

1 Kilometre (km)	=	1000 metres (m)
1 metre (m)	=	100 centimetres (cm)
1 centimetre (cm)	=	10 millimetres (mm)
1 metre (m)	=	1000 millimetres (mm)

• **Perimeter:** Perimeter is the distance around a shape, or the length of its boundary.

1. Complete the following:

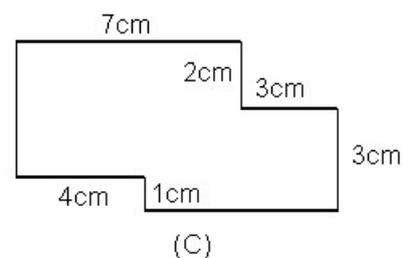
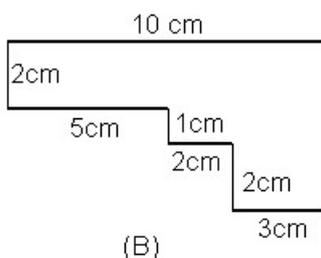
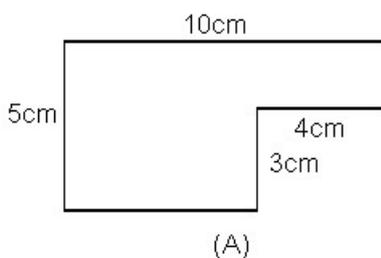
(a) 234 cm = _____ m.

(b) 2345 m = _____ km

(c) 2345 mm = _____ m.

(d) 3.45 m = _____ cm.

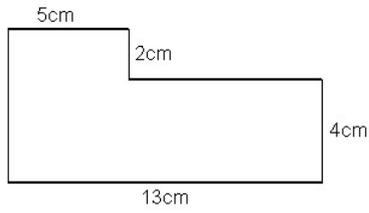
2. Find the perimeter of the following shapes:



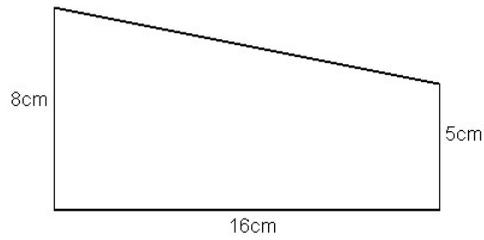
(A) _____ ; (B) _____ ; (C) _____ ;

5.4 Topic 4 — Measurement (Area)

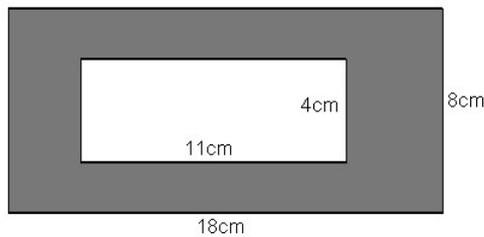
1. Find the area of the following shape:



2. Find the area of the following shape:



3. Find the area of the shaded region:



5.5 Problem Solving (HCF & LCM)

1. Find the highest common factor of the numbers 36, 42 and 72.

2. Three girls shared out a number of marbles so that each received the same number. There were 2 marbles left over. A fourth friend arrived so the marbles were shared out again by four this time. Once again there were 2 left over. A fifth friend was called over. The marbles were shared out once again and amazingly there were 2 left over again. Find the smallest number of marbles that could make this possible.

3. Four monkeys shared evenly among themselves a number of coconuts. There were none left over. Another two monkeys arrived so they put all the coconuts back on the ground and shared them out evenly amongst the six monkeys. Once again there were none left over. Find the smallest number of coconuts that would make this possible.

4. A light flashes every 8 minutes, a second light flashes every 12 minutes, and the third light flashed every 16 minutes. If all three lights flash together at 9:00 a.m. What is the very next time on the clock that these three lights will flash together again?

5.6 Test Paper 5

5.6.1 Part A — 10 Multiple Choice Questions (1 mark each)

- The sum of two numbers is 21 and their difference is 3. Their product will be:
(A) 80 (B) 108 (C) 20 (D) 62
- 45% means 27 parts out of :
(A) 40 (B) 100 (C) 50 (D) 60
- Find the square root of the sum of the square of 12 and 9.
(A) 12 (B) 13 (C) 14 (D) 15
- \$45 is three fifths of a certain number of dollars. That number must be:
\$65 (A) (B) \$75 (C) \$27 (D) \$70
- The place value of the 9 in the number 1234.95 is :
(A) Hundreds (B) Tens (C) Units (D) Tenths
- What time will be 150 minutes after 10:50 a.m.?
(A) 12:20 p.m. (B) 1:20 p.m. (C) 8:20 a.m. (D) 1:20 a.m
- A chemist knows that 2 mL of a certain substance weighs 11 grams. What would 1 L of the substance weigh?
(A) 275 g (B) 550 g (C) 1100 g (D) 5500 g
- If 30% of a number is 180, What would 20% of the same number be?
(A) 160 (B) 170 (C) 120 (D) 270
- By increasing each side of a square, by the same amount, the area of the square increases by 44%. The percentage increase in the side of the square would be:
(A) 10% (B) 15% (C) 20% (D) 44%
- One man can paint a room in 200 minutes. Another would take 300 minutes. How many minutes would they take if they worked together?
(A) 120 minutes (B) 130 minutes (C) 150 minutes (D) 500 minutes

5.6.2 Part B — 10 Average Questions (2 marks each)

1. The total bus fare for 2 adults and 3 children is \$15. If the children's fare was \$1.86 each, How much is each adult fare?

2. The product of the sum of 12 and 7 and the difference of 12 and 7 is:

3. 48 kg of wheat can be bought for \$24. How much would 4.5 kg cost?

4. Along a straight road 85 telegraph poles are placed with 10 m between each pole. What is the distance from the first pole to the last one?

5. Each side of a rectangle is increased by 10%. By what percentage has its area increased?

6. A rectangle measures 4 cm in length by 3 cm in width. If 30 of these rectangles are joined together at their widths what would be the perimeter of the resulting rectangle?

7. Half the sum of 32 and 26 is increased by 17. What would 54 more than this number be?

8. The sum of two numbers is 28 and their difference is 6. What would their product be?

9. The perimeter of an isosceles triangle whose base is 14 cm is 58. Find one of the equal sides of the triangle.

10. The area of a square is numerically equal to its perimeter. If four of these squares are joined together side by side, What would be its perimeter?

5.6.3 Part C — 10 Extension Questions (3 marks each)

1. If 84 apples and 105 oranges are equally shared, What is the most number of people the fruits could be shared between?

2. The perimeter of a lake is 0.261 km. How many trees are needed if a tree is planted every 450 cm?

3. Four numbers 2, 4, 6 and 8 are arranged in a pattern as shown. 2, 4, 6, 8, 8, 6, 4, 2, What is the 2007th number?

4. James has \$50 and spends 25% of it on a movie and 60% of the remaining money on a T-shirt. How much money does he have left?

5. How many four digit numbers can be formed using the digits 2, 3, 4 and 5 if repetition is allowed?

6. How many four digit numbers can be formed using the digits 2, 3, 4 and 5 if no repetition is allowed?

7. One quarter of the water in a fish tank had evaporated. I had to add 28 litres of water to fill it. How many litres would the tank hold when it was full?

8. The beach is 30 km away. We averaged 40 km/h on the way there and 60 km/h on the way home. Find the average speed for the entire trip.

9. When a tank is half full of water it weighs 15 kg and when it is $\frac{2}{3}$ full it weighs 18 kg. Find the weight of the tank.

10. Five men can complete a task in 18 days. If they worked at the same rate, how long would 12 men take?

5.6.4 Part D — 8 Challenging Questions (5 marks each)

1. The area of a rectangular paper is 400 cm^2 . If the length and breadth of the paper are both double, what is the new area of the paper?

2. I am thinking of two numbers. Twice the first added to the second gives 10. The first added to twice the second is 11. Find the sum of these two numbers.

3. I am less than one metre tall but more than 60 centimetres tall. My height in centimetres is a multiple of 7 and is also 2 centimetres more than a multiple of 6. What is my height in centimetres?

4. The square is divided into two congruent rectangles. The perimeter of each rectangle is 15 cm. Find the perimeter of the original square.

5. A dollar was changed into 18 coins consisting of just 5 ¢ coins and 10 ¢ coins. How many coins of each kind were in the change?

6. The perimeter of a rectangle is 22 cm and the length of each side is a natural number. How many different areas in square centimetres can the rectangle have?

7. Suppose the sum of the five consecutive even numbers is 320. What is the largest of the five numbers?

8. The figure in the diagram is made up of equal rectangles. The length of each rectangle is twice the breadth. The perimeter of the figure is 108 cm. Find the area of the figure.

