



Grade 8

Mathematics

Unit : Numbers pattern

- 1) Write the general term of the even number pattern.
- 2) Write the position of the following numbers in the even number pattern.
  - i) 48
  - ii) 1024
  - iii) 264
  - iv) 126
- 3) Write the first five terms of the following number patterns with the general term.
  - i)  $6n$
  - ii)  $5n + 3$
  - iii)  $7n - 2$
  - iv)  $11n + 2$
- 4) The general term of a number pattern is  $8n - 3$ . What is the position of 21 in it?
- 5) The general term of a number pattern is  $9n - 7$ . What is the position of 47 in it?

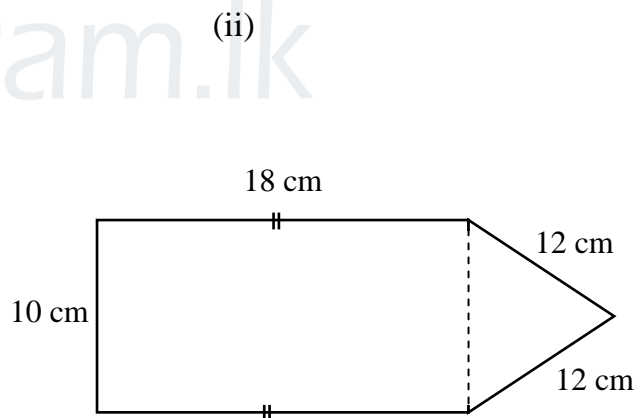
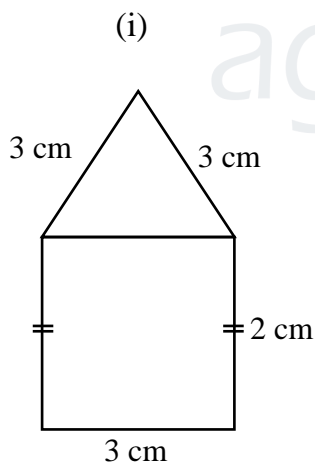


Grade 8

Mathematics

Unit : Perimeter

- 1) A side of a triangle with three equal sides is 5.2 cm. Find the side of a square whose perimeter is equal to the perimeter of this triangle.
- 2) The length of a side of an equilateral triangle is 6 cm. Find its perimeter.
- 3) Find the perimeter of a rectangle of length 15 cm and breadth 7 cm.
- 4) Find the perimeter of a square of side 10 cm.
- 5) Find the perimeter of the following composite plane figures.





Grade 8

Mathematics

Unit : Angles

1) Write the value of complementary angles of the following angles.

- i)  $62^\circ$
- ii)  $18^\circ$
- iii)  $34^\circ$
- iv)  $47^\circ$

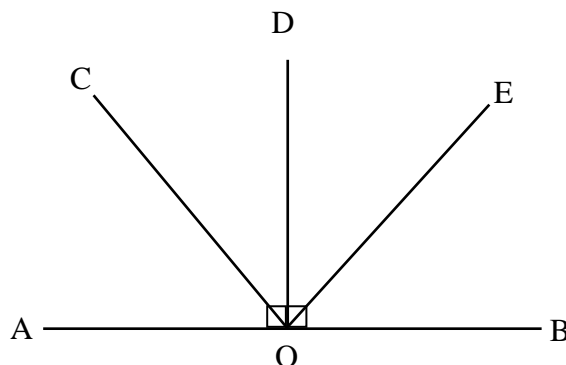
2) Select the pairs of complementary angles from the following.

- i)  $65^\circ, 35^\circ$
- ii)  $45^\circ, 45^\circ$
- iii)  $76^\circ, 14^\circ$
- iv)  $88^\circ, 92^\circ$
- v)  $58^\circ, 32^\circ$
- vi)  $23^\circ, 77^\circ$

3) Write the supplements of the following angles.

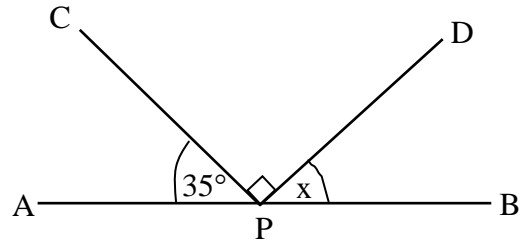
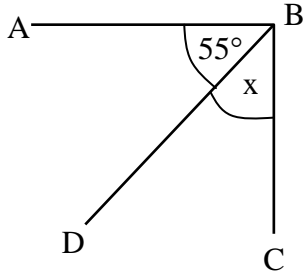
- i)  $110^\circ$
- ii)  $80^\circ$
- iii)  $25^\circ$
- iv)  $60^\circ$

4) Fill in the blanks.



- i) Complement of  $\hat{AOC}$
- ii) Complement of  $\hat{BOE}$
- iii) Complement of  $\hat{DOE}$
- iv) Complement of  $\hat{COD}$

5) Find the value of  $x$  in the following figures.



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Mathematics

Unit : Directed Numbers

1) Simplify

i)  $\left(\frac{+36}{-12}\right)$

ii)  $\left(\frac{-18}{+6}\right)$

iii)  $\left(\frac{+14}{-7}\right)$

2) Find the values of the followings using a number line.

i)  $(-4) + 6$

ii)  $(-5) + (5)$

iii)  $8 + (-5)$

iv)  $(-11) + 7 + (-2)$

3) Simplify

i)  $(-5) \times (-5)$

ii)  $7 \times 0$

iii)  $8 \times (-4)$

iv)  $(-6) \times 3$

4) Simplify.

i)  $\frac{(-20) \times (-8)}{(+5)}$

ii)  $\frac{(-8) \times (-4)}{(+4) \times (-2)}$

iii)  $\frac{(-6) \times (-3) \times (+2)}{(-12) \times (+3)}$

iv)  $\frac{(+5) \times (-4) \times (-8)}{(-10) \times (-2) \times (+2)}$

5) Divide

i)  $(+7.5) \div (+5)$

ii)  $(-28.8) \div (-9)$



Grade 8

Mathematics

Unit : Algebraic Expressions

1) Simplify

i)  $2a + 3b + a + 5b$

ii)  $3x - 2y + 5y + x$

iii)  $5q - 2q + q$

iv)  $2x + 5y + y - 2$

2) Find the values of the following expressions when  $x = 3$ 

i)  $8 - 2x$

ii)  $2x + 9$

iii)  $\frac{2x + 3}{3}$

iv)  $\frac{x}{6} + \frac{1}{2}$

3) Write the following expressions removing brackets.

i)  $3(x + 2y)$

ii)  $a(2b + q - c)$

iii)  $3(a + b - c)$

iv)  $5(x + 3) + 2(x - 1)$

4) Find the perimeter of a rectangle whose length and breadth are  $(x + 1)$  and  $y$  respectively.