Question bank

Chapter-1 Term 1 - Topic 1: Whole numbers

Q-1 **Look at the place value table and give the value of the following digits in the table.**

a) 9

b) 2

c) 8

d) 6

e) 4

f) 7

g) 3

Q-2 **The table gives the abbreviations we use for place values. Copy the table and write the digits in each number in the correct place to show the place value of each one.**

Q-3 **Give the place value of each underlined digit.**

a) 5 6■98

b) 12 708 563

c) 1 256 382

d) 850 5258

e) 389 425

Q-4 **For how many countries are the population numbers given on the map?**

Q-5 **For how many countries are the population numbers given on the map?**

a) Which of these countries has the smallest population?

b) Write this number in words.

c) Which of these countries has the highest population?

d) Write this number in words.

e) Which five countries have the highest populations?

f) Write the populations of these five countries in words.

Q-6 **The following numbers are written using digits. Write each number in words.**

a) 800 800

b) 1 650 950

c) 6 769 098

d) 10 054 734

e) 10 076 225

f) 906 104

g) 2 089 405

h) 6 090 065

i) 28 937 211

j) 8 732 163 462 705

Q-7 **The following numbers are written in words. Write the numbers using digits.**

a) three hundred and forty-two thousand

b) eight hundred and fifty thousand, three hundred and twenty-five

c) four trillion, two hundred and twenty-six thousand, four hundred

d) two million, four hundred and thirty-five thousand, six hundred and twenty

e) seven million, eight hundred and sixty thousand, three hundred and fifteen

f) ten million, five hundred and seventy-eight thousand and fifty

g) fifteen million, seven hundred and fifty-three thousand, nine hundred and twelve

h) twenty-two million, nine hundred and fifty thousand and thirty-four

Chapter-2 Term 1 - Topic 2: Fractions

Q-1 **Identify the fractions below as proper, improper or mixed fractions.**

a) 22/7

b) 2/5

c) 3 1/2

d) 1/2

e) 5/12

f) 2 7/8

g) 999/1000

h) 11/6

Q-2 **How many blocks are there on Truck A?**

a) How many blocks are there on Truck B?

b) How many blocks are there on Truck C?

Q-3 **What fraction of the blocks on Truck A is shaded?**

a) What fraction of the blocks on Truck B is shaded?

b) What fraction of the blocks on Truck C is shaded?

Q-4 **Do the fractions have the same value?**

a) What are these fractions called?

Q-5 **What do you think the word equivalent means?**

Q-6 **Study each list and group the equivalent fractions together.**

a) 1/2, 2/4, 3/6, 1/2, 2/3, 4/6, 2/5, 4/10, 1/5

b) 1/3, 2/6, 1/5, 4/8, 5/10, 6/12, 3/6, 2/6, 1/6

c) 1/3, 2/6, 3/9, 2/3, 4/6, 2/6, 4/5, 8/10, 2/10

d) 1/3, 4/12, 5/15, 2/6, 4/6, 3/4, 1/2, 2/4

e) 1/4, 2/4, 3/4, 3/6, 6/12, 1/6, 1/4, 2/8, 3/12

f) 4/16, 5/20, 2/7, 6/7, 4/7, 3/5, 4/5, 5/5

g) 2/8, 3/8, 4/8, 1/5, 2/10, 3/15, 3/12, 4/12, 6/12

h) 2/10, 4/20, 5/25, 2/5, 4/10, 5/10, 2/4, 2/8, 1/4

i) 2/5, 4/10, 6/15, 3/6, 3/9, 3/12, 1/7, 1/14, 1/28

j) 6/15, 8/20, 10/25, 1/15, 2/20, 4/20, 4/6, 3/6, 2/6

Q-7 **Copy and fill in the missing parts of the fractions to form the correct equivalent fractions.**

a) __/4 = 1/__

b) __/4 = 8/__

c) 4/8 = 12/__ = __/36

d) 7/__ = __/24 = __/36 = 28/__

e) 1/5 = __

f) 4/6 = __/48

g) 2/3 = 4/__

h) 3/__ = __/63

Q-8 **Give two equivalent fractions for each fraction.**

a) 2/4

b) 3/5

c) 6/7

d) 9/13

e) 12/17

f) 4/9

Q-9 **Give an equivalent fraction for each fraction.**

a) 3/5

b) 2/6

c) 11/17

d) 13/14

Q-10 **Abolaji wants the fraction of red blocks in Model B to be equivalent to the fraction of red blocks in Model A. How many blocks in Model B need to be red to make that happen?**

Q-11 **You and a friend are each making a comic strip for art class. You are both given the same size sheet of rectangular paper and are allowed to decide how many frames you are going to have in your comic strip but the frames must be equal in size. You decide to split your paper into 3 equal frames. Your friend Bisi decides to split her paper into 12 equal frames. How many comic frames must Bisi draw in order to equal one frame of your comic?**

Q-12 **Last year, you cut your birthday cake into 5 equal pieces and ate 1 piece. This year, you bought the same size cake but cut the cake into 10 equal pieces so you could share with more friends. How many pieces of cake would you need to eat this year to eat the same amount of cake as you ate last year?**

Q-13 **Eniola has 5 strips of equal length. One is shown above and the other 4 are shown below. She divides each strip into a different number of parts and shades some of the parts blue. Work out which of the strips below has the equivalent portion shaded blue as the one shown above?**

Q-14 **Copy each pair of fractions and fill in the missing numbers.**

a) 3/5 = __/10

b) 8/12 = __/3

c) 2/7 = __/14

d) 22/33 = 2/__

e) 2/5 = __/10 = 8/__ = __/35

Q-15 **Give the simplest equivalent fraction for each of these fractions.**

a) 15/27

b) 150/250

c) 96/144

d) 192/264

e) 224/254

Q-16 **Which is larger?**

a) 7/11 or 8/11

b) 7/16 or 9/19

c) 2 3/4 or 12/5

Q-17 **Fill in the correct symbol < or >.**

a) 13/18 … 17/18

b) 1/10 … 1/8

c) 4 2/3 … 4 1/5

Q-18 **Convert these fractions to decimal numbers.**

a) 1/2

b) 1/4

c) 1/8

d) 3/4

e) 3/8

f) 7/8

g) 1/5

Q-19 **Convert the decimal numbers to fractions.**

a) 0.1

b) 0.3

c) 0.75

d) 0.65

e) 0.35

f) 0.95

g) 0.85

h) 0.9

i) 0.37

j) 0.05

k) 1.412

l) 2.915

m) 4.76

n) 3.85

o) 5.01

Q-20 **Give any four fractions that equal 0.5 when written as a decimal number.**

Q-21 **Convert these fractions to percentages.**

a) 1/20

b) 1/10

c) 2/5

d) 7/10

e) 3/20

f) 9/20

g) 4/5

h) 7/20

i) 4/25

j) 4/100

Q-22 **Convert these percentages to fractions.**

a) 40%

b) 90%

c) 50%

d) 70%

e) 80%

f) 25%

g) 5%

h) 95%

i) 35%

j) 75%

Q-23 **Complete the following table.**

Chapter-3 Term 1 - Topic 3: Addition and subtraction of fractions

Q-1 **Add.**

a) 2/7 + 4/7

b) 15/28 + 17/28

Q-2 **Add.**

a) 2/5 + 1/4

b) 2/3 + 4/5

c) 1/2 + 6/5 + 4/3

Q-3 **Calculate.**

a) 1 1/2 + 7/8

b) 3 1/3 + 5 2/5

Q-4 **Calculate.**

a) 3/4 + 1/9

b) 1/8 + 2/7

c) 4/5 + 1/7

d) 3/7 + 4/9

e) 2 1/2 + 1 7/8

f) 3 1/2 + 2 5/8

Q-5 **Subtract these fractions.**

a) 3/8 – 5/8

b) 2/3 – 5/8

c) 3/4 – 2/3

Q-6 **Find the following.**

a) 5 1/3 – 3 1/7

b) 7 4/5 – 3 2/7

Q-7 **Calculate. Leave your answers in the simplest form.**

a) 5/7 – 2/7

b) 3/5 – 1/4

c) 3/4 – 1/3

d) 3 1/2 + 2 1/4

e) 7 1/4 + 5 3/7

f) 1 1/5 + 2 1/3

g) 2/3 – 4 1/5

Chapter-4 Term 1 - Topic 4: Multiplication and division of fractions

Q-1 **Multiply.**

a) 2/3 × 8/15

b) 3/5 × 6/7 × 3/8

c) 3/4 × 4/7 × 7/9

Q-2 **Calculate and write your answers in their simplest form.**

a) 3 1/3 × 1 4/5

b) 1 3/4 × 2 4/5 × 3 1/3

Q-3 **Find the reciprocal of each number.**

a) 10

b) 1/12

c) 5/8

d) 27/13

e) 4 3/5

f) 1/9

g) 5/6

h) 21/23

i) 18/7

j) 3/2

k) 11/14

l) 5/16

Q-4 **Calculate.**

a) 2/3 × 10/11

b) 5/7 × 7/8

c) 3/5 × 2/3

d) 3/5 × 5/9 × 3/4

e) 3 1/3 × 1 4/5

f) 1 3/4 × 2 1/4 × 3 1/3

g) 4/5 of 20

h) 5/6 × 3/8

i) 2 5/3 × 5 1/2

j) 6/5 × 3/7

k) 2/3 × 3/10

l) 2 1/2 × 1 3/4

Q-5 **Calculate. Leave your answers in the simplest form.**

a) 2/5 ÷ 1/3

b) 5 1/4 ÷ 1 1/5

c) 3 3/4 ÷ 1 1/4

d) 4/3 ÷ 5/2

e) 1 1/2 ÷ 4/5 ÷ 2/3

f) 4/7 ÷ 7/5

Chapter-5 Term 1 - Topic 5: HCF and LCM of whole numbers

Q-1 **Write down the factors of the following numbers.**

a) 14

b) 72

c) 87

d) 84

e) 49

f) 57

Q-2 **Which of the numbers above have only two factors?**

Q-3 **Find the HCF of each pair of numbers.**

a) 6, 12

b) 8, 25

c) 24, 60

d) 100, 45

e) 33, 77

f) 24, 64

Q-4 **Write down multiples and LCM as directed.**

a) Write down the first six multiples of the number 6.

b) Write down the first six multiples of the number 9.

Q-5 **Find the LCM of the following groups of numbers.**

a) 8, 12

b) 9, 12

c) 5, 8

d) 4, 12

e) 12, 20

f) 10, 16

g) 9, 15

h) 84, 112 and 168

Q-6 **From the numbers {1, 2, 3, 4, 7, 9, 12, 18, 19, 24, 27, 48, 80, 84, 92} select the following groups of numbers.**

a) factors of 27

b) multiples of 4

c) prime numbers

Q-7 **Write the prime factors of 36.**

Q-8 **Write the prime factors of 45.**

Q-9 **Use a ladder to express each number below as a product of primes.**

a) 600

b) 627

c) 693

Q-10 **List the factors of the following numbers.**

a) 12 and 36

b) 18 and 24

c) 35 and 70

d) 36 and 42

e) 40 and 80

f) 72 and 48

g) 75 and 50

Q-11 **Determine the HCF of the following numbers.**

a) 16 and 24

b) 48 and 72

c) 60 and 48

d) 80 and 72

e) 64 and 48

f) 45 and 27

g) 168 and 144

Q-12 **Express the numbers 300 and 90 as products of prime factors**

Q-13 **Express the numbers 126 and 60 as products of prime factors.**

Q-14 **Determine the LCM of these numbers.**

a) 48 and 72

b) 42 and 70

c) 105 and 63

d) 72 and 120

e) 18, 30 and 42

f) 12, 4 and 6

g) 12, 24 and 6

h) 20, 5 and 10

Q-15 **Tayo and Banke went to the movies. They bought the same number of tickets. Tayo bought them in packs of 7, and Banke bought them in packs of 20. What is the smallest possible number of tickets they each bought?**

Q-16 **In preparation for a party, Dele is putting desserts onto platters. The chocolate cake is cut into 12 pieces and the cheesecake is cut into 18 pieces. If he wants to prepare identical platters without having any cake left over, what is the greatest number of platters he can prepare?**

Q-17 **Yetunde bought equal numbers of peanuts and walnuts at the store. The peanuts came in packs of 13. The walnuts came in packages of 18. What is the smallest number of walnuts that she could have bought?**

Q-18 **Find the longest length of rope which could be used to measure any of the following lengths accurately: 45 cm, 75 cm and 81 cm, without any rope left over.**

Q-19 **The length, breadth and height of a room are 6 m, 5 m and 3 m respectively. Find the longest tape which can measure the dimensions of the room exactly.**

Chapter-6 Term 1 - Topic 6: Approximation

Q-1 **Round the following numbers to the nearest 10.**

a) 13

b) 23

c) 18

d) 26
e) 24
f) 17
g) 22
h) 14
i) 25
j) 15

Q-2 **Round the following numbers to the nearest 100.**

a) 140
b) 260
c) 180
d) 94
e) 246
f) 150
g) 263
h) 149
i) 252
j) 309

Q-3 **Round the following numbers to the nearest 1 000.**

a) 2 300
b) 2 900
c) 3 400
d) 3 637
e) 2 396
f) 1 978
g) 3 921
h) 2 500
i) 3 601
j) 4 109

Q-4 **Round the following numbers to the nearest 10, 100 and 1 000.**

a) 2 643
b) 4 472
c) 1 658
d) 3 261
e) 6 524

f) 8 175
g) 7 229
h) 9 649
i) 8 925
j) 9 095

Q-5 **Round the following to one decimal place.**

a) 4.79
b) 6.32
c) 7.43
d) 5.14
e) 9.25
f) 2.58
g) 3.41
h) 0.96
i) 12.42
j) 18.79

Q-6 **Round the following to two decimal places.**

a) 0.473
b) 0.725
c) 0.391
d) 0.486
e) 0.372
f) 0.595
g) 0.723
h) 0.994
i) 3.721
j) 4.799

Q-7 **Round the following to three decimal places.**

a) 0.0246
b) 0.0049
c) 2.1375
d) 0.0172
e) 3.4961
f) 0.0395
g) 0.0257

h) 1.4739
i) 7.2953
j) 0.5729

Q-8 **Round the following to one significant figure.**

a) 0.0056
b) 0.0037
c) 0.00042
d) 0.000352
e) 0.000161
f) 0.0427
g) 0.000892
h) 0.3691
i) 0.0000131
j) 0.000952

Q-9 **Round the following to two significant figures.**

a) 0.00482
b) 0.003387
c) 0.000194
d) 0.000359
e) 0.0008276
f) 0.04821
g) 0.0008901
h) 0.32697
i) 0.0000106
j) 0.00079511

Q-10 **Round the following to three significant figures.**

a) 0.004371
b) 0.0036391
c) 0.00042045
d) 0.0003527
e) 0.00069952
f) 0.042648
g) 0.0008925
h) 0.36052
i) 0.0008131

j) 0.0009573

Q-11 **First round each number to the nearest 10 and then approximate the answer.**

a) 999 + 11

b) 35 × 12

c) 83 ÷ 20

d) 109 – 69

e) 273 – 87

f) 767 – 55

g) 56 × 24

h) 312 ÷ 12

Q-12 **First round each number to one decimal place and then approximate the answers.**

a) 1.31 + 5.7

b) 9.711 + 0.27

c) 1.83 + 5.15

d) 1.362 + 1.694

e) 7.6 – 8.569

f) 8.112 – 0.027

g) 14.28 – 4.2

h) 41.60 ÷ 6.4

i) 3.52 × 66

j) 0.45 × 2.9

Q-13 **Approximate the answers below by rounding to one significant figure.**

a) A park has dimensions of 43 m by 62 m. What is the area of the park?

b) Biola measures two parts of a wall. One part is 4.6 m long, the other part is 3.71 m long. What is the total length of the wall?

c) Yetunde measures the heights of five people: 1.26 m, 1.41 m, 1.13 m, 1.30 m and 1.07 m. What is the approximate sum of all the heights?

d) Kumbi likes cycling. He cycled 4.8 km on Saturday and 9.34 km on Sunday. How far did he cycle in total?

Chapter-7 Term 2 - Topic 1: Estimation

Q-1 **State what unit of measurement is appropriate for the following:**

a) the size of a window

b) the hands of a clock

c) a big fish tank

d) water in an ice cube

e) your bed

Chapter-8 Term 2 - Topic 2: Counting in base 2

Q-1 **Use your binary cards to represent the following base ten numbers. Write the numbers in binary.**

a) 12

b) 23

c) 19

d) 21

e) 25

Q-2 **What numbers are represented by the cards shown? Write the numbers in binary, and then in base 10.**

a) cards shown in (a)

b) cards shown in (b)

c) cards shown in (c)

Q-3 **Write the following base 10 numbers in binary. Use your binary cards to help you work it out.**

a) 1, 2, 3, 4, 5, 6, 7

b) 3, 6, 9, 12, 15, 18

c) 4, 8, 12, 16, 20

d) 5, 10, 15, 20, 25

Q-4 **Write the following series of binary numbers in base 10: 00110, 01100, 10010, 11000. Use your binary cards to help you count the numbers.**

hapter-9 Term 2 - Topic 3: Conversion of base 10 numerals to binary numera

Q-1 **Convert the following binary numbers to base 10 numbers.**

a) 110

b) 1111

c) 1001

d) 11101

e) 10001

Q-2 **Convert the following base 10 numbers to binary numbers.**

a) 9

b) 8

c) 14

d) 17

e) 18

f) 30

ter-10 Term 2 - Topic 4: Addition and subtraction of numbers in base 2 num

Q-1 **Add or subtract the given binary numbers.**

a) 01010 + 01011

b) 01101 + 10101

c) 10101 + 11110

d) 11110 – 01001

e) 01100 – 01001

f) 01100 + 11100

g) 11100 – 10010

h) 10010 – 10000

i) 10000 + 01101

Q-2 **Convert and compare binary and decimal calculations.**

a) Convert the binary numbers 11101 and 1110 to base 10.

b) Add the two base 10 numbers.

c) Add the two binary numbers.

Q-3 **Binary to decimal conversion and difference.**

a) Convert the binary numbers 11101 and 10111 to base 10.

b) Calculate the difference between the two base 10 numbers.

Chapter-11 Term 2 - Topic 5: Multiplication of numbers in base 2 numerals

Q-1 **Calculate the product of the binary numbers.**

a) 111 × 10

b) 1100 × 100

c) 101 × 1000

d) 111 × 11

e) 1101 × 101

f) 1101 × 11

g) 1111 × 110

Q-2 **Multiply and convert between base 10 and binary numbers.**

a) Multiply the base 10 numbers 15 and 13.

b) Convert your answer to a binary number.

c) Convert 15 and 13 to binary numbers.

Chapter-12 Term 2 - Topic 6: Addition and subtraction

Q-1 **Calculate the sum of the following pairs of numbers.**

a) 4855 + 5446

b) 6321 + 1789

c) 2312 + 5889

d) 1885 + 9348

e) 3500 + 4506

f) 1291 + 3402

g) 339 + 84

h) 1200 + 800

i) 6346 + 8982

j) 726 + 275

k) 58 + 3252

l) 7474 + 11332

Q-2 **Add the following numbers.**

a) 387 + 285

b) 5371 + 2835

c) 1248 + 3579

d) 325 + 132 + 321

e) 421 + 235 + 142

f) 1145 + 3239

g) 3000 + 2500

h) 5236 + 3492

i) 2900 + 4700

j) 3167 + 1285

Q-3 **The head teacher of GS Nchemba ordered 3143 new books in the first half of the year and 5278 in the second half. How many new books did she order in total?**

Q-4 **Mrs Njikang had 4278 customers in 2012 and 5545 customers in 2013. How many customers did she have in the two years?**

Q-5 **Mary picked 134 pears, 254 bananas and 205 apples. How many pieces of fruit did she pick?**

Q-6 **Subtract.**

a) 1 596 – 981

b) 4 075 – 1 697

c) 8 000 – 1 675

d) 5 020 – 1 180

e) 6 534 – 3 388

f) 7 589 – 1 647

g) 7 937 – 6 473

h) 9 302 – 8 714

i) 9 132 – 3 207

j) 4 346 – 2 119

k) 5 692 – 4 787

l) 2 442 – 1 152

Q-7 **Write the numbers one below the other and then subtract.**

a) 9 567 – 3 567

b) 4 435 – 4 124

c) 8 103 – 6 652

d) 6 197 – 5 384

e) 1 336 – 1 041

f) 9 962 – 8 520

g) 7 633 – 6 714

h) 8 421 – 7 001

Q-8 **Write down the numbers correctly and subtract.**

a) 5 545 – 4 228

b) 2 110 – 1 616

c) 5 807 – 3 241

d) 4 079 – 3 786

e) 6 303 – 1 006

f) 4 420 – 3 210

Q-9 **In one month, Paul saved ■90, then spent ■250 of that money, and the next month he withdrew ■250. How much of the money he saved was left over?**

Q-10 **If there were 6 712 books in a library and 3 964 of the books were removed, how many books were left in the library?**

Q-11 **A woman had ■6 500 in her cheque account. She paid ■3 650 with a bank transfer. How much money was left in her account?**

Q-12 **Water in a container has a mass of 7 590 g and ice in an identical container has a mass of 6 295 g. How much heavier is the water than the ice?**

Q-13 **Find out what the mass of 1 L of milk is. Is it heavier or lighter than 1 L of water? By how much?**

Q-14 **Mr Bibi harvested 7 268 yams and sold 5 859 of these yams. How many yams were left for his family to eat?**

Q-15 **There are 365 days in a year. How many days are left in a year after the first six months?**

Q-16 **Complete the statements (a to g).**

a) The point A is ___ units to the right of 0.

b) The point B is ___ units to the left of C.

c) The point D is ___ units to the left of A.

d) The point F is ___ units to the left of E.

e) The point C is ___ units to the right of C.

f) The point E is ___ units to the left of A.

g) The point 0 is ___ units to the right of F.

Q-17 **Arrange the numbers in each group in ascending order.**

a) 3, –2

b) –2, 0

c) 4, –1, –4, 1

d) 1, –10, –3, 5, –12

Q-18 **For each of the following substitute the with > or <.**

a) –2 4

b) –2 1

c) 3 –5

d) –7 6

e) 8 –8

f) 0 –4

Q-19 **Arrange the following integers in ascending order.**

a) 2, –3, –4

b) –1, –4, –2

c) 8, –9, –1, 6, –2

Q-20 **For each of the following, determine which number the arrow is pointing to.**

a) number line (a)

b) number line (b)

c) number line (c)

d) number line (d)

Q-21 **Find the missing number.**

a) 5 – = 1

b) 3 – = 3

c) 4 – = –2

d) 7 – = –9

e) –2 + = 3

f) –5 + = 1

g) –4 – = –7

h) –3 + = 4

Q-22 **Use a number line to calculate.**

a) (+2) + (+6)

b) (–7) + (+8)

c) (–3) + (+4)
d) (+6) + (+9)
e) (+1) + (–9)
f) (–1) + (+2)
g) (+5) + (–4)
h) (–2) + (+7)

Q-23 **Calculate using a number line.**

a) (+2) + (–6)
b) (–7) + (–8)
c) (+2) – (–6)
d) (–3) – (–7)
e) (–7) + (–3)

Q-24 **What is the change in temperature in each of the following?**

a) 3 °C and 7 °C
b) 17 °C and 23 °C
c) –5 °C and 4 °C
d) –7 °C and 2 °C
e) –6 °C and –3 °C
f) –7 °C and 0 °C
g) 5 °C and 2 °C
h) 7 °C and –2 °C

Q-25 **The temperature is –2 °C. If the temperature rises by 15 °C, what is the new temperature?**

Q-26 **A woman owes ■6 000 to a bank, then receives ■8 500 and pays it in. Does she still owe money? What is her balance now?**

Q-27 **A deep■sea diver is at –75 m and rises 40 m. At what depth is he now?**

Q-28 **A submarine is at –60 m and an aeroplane at 340 m above sea level. How far must a missile travel to hit the aeroplane?**

Q-29 **A freezer runs at –18 °C and its temperature rises 5 °C. What is the new temperature?**

Q-30 **In a quiz show, contestants earn 5 points for a correct answer and lose 5 points for a wrong answer. In the first round, Kunle scored 15 (3 right, 0 wrong) and Yomi scored –15 (0 right, 3 wrong).**

a) If Tutu gets 2 right and 1 wrong, what is her score?

b) If Tolani gets 1 right and 2 wrong, what is her score?

c) In the second round, Yomi gets 2 right and 1 wrong. What is his new score?

d) In the second round, Tolani gets all 3 wrong. What is her new score?

Chapter-13 Term 2 - Topic 1: Use of symbols

Q-1 **Find the number that will make the following open sentences true.**

a) ■ + 8 = 11

b) ■ = 38 + 27

c) 73 – 4 = ■

d) ■ – 4 = 0

e) ■ × 3 = 15

Q-2 **Find the values of the following sentences, if the variable equals each of the numbers listed in brackets.**

a) 3 × ■ (1, 2, 3)

b) ■ + 7 (–1, –2, –3)

c) 5 × ■ + 2 (2, 4, 6)

d) ■ ÷ 2 (–4, 4, –16)

e) –2 × ■ – 4 (–2, –4, –6)

Q-3 **Choose from (3, 5, 6, 8) the value that will make the sentence true.**

a) ■ + 6 = 12

b) 56/■ = 7

c) 6 × ■ = 30

d) 2 × ■ – 1 = 9

e) ■ = (15 – 3)/(2 + 2)

Q-4 **Find the number that each letter stands for.**

a) m + 4 = 11

b) k – 9 = 0

c) 2 × y + 2 = 12

d) 5 × x = –50

e) z ÷ 3 = 5

f) $3 \times x + 5 = -1$

g) $12 - m = 4$

h) $p - 3 = -10$

Q-5 **If x = 15 and y = 6, find the value of:**

a) $x + y$

b) $x \times y$

c) $x - 3 \times y$

d) $x \div 6 + 1$

Q-6 **If $y = 2 \times x + 3$, find the value of y when:**

a) $x = 5$

b) $x = 9$

c) $x = -5$

Q-7 **If $2p + q = 7$, find the value of p if:**

a) $q = 1$

b) $q = 3$

c) $q = 5$

Q-8 **Complete the following.**

a) One chocolate bar costs ■150. Two chocolate bars cost ■150 × 2. Six chocolate bars cost ____. x chocolate bars cost ____.

b) If Yetunde is now 13 years old, then: In 1 year's time, Yetunde will be ____ years old. In 4 years' time, Yetunde will be ____ years old. In x years' time, Yetunde will be ____ years old.

c) If the sum of a boy and a girl's ages is 20 years, then: If the boy is 5 years old, the girl is ____ years old. If the boy is 7 years old, the girl is ____ years old. If the boy is x years old, the girl is ____ years old.

Q-9 **Translate each phrase into an algebraic expression.**

a) The sum of x and 2.

b) t divided by 8.

c) The product of 9 and m.

d) Subtract 5 from c.

e) Combine y and 7.

f) Three■sevenths of h.

g) 3 multiplied by d.

Q-10 **Translate each sentence into an algebraic equation and find the value of the variable.**

a) Sum of x and 3 gives 5.

b) 2 multiplied by b is equal to 8.

c) The difference between 23 and y is 12.

d) Product of 4 and z is the same as 16.

e) Total of m and 3 is 21.

f) b divided by 6 gives 1.

g) n minus 2 is equal to 16.

h) 11 times p is 33.

Q-11 **Form an expression, and then solve the following.**

a) Oranges cost ■30 each. A number of oranges, n, was bought at a total cost of ■690. How many oranges were bought?

b) Wale found 50 seashells on the beach. He gave Iyabo some of his seashells. He has 42 seashell left. How many seashells did Wale give to Iyabo?

c) Biola's high school played 12 soccer games this year. The team won most of their games. They were defeated during 3 games. How many games did they play in total?

d) How many packs of DVDs can you buy with ■25 500, if one pack costs ■2125?

e) After eating at the restaurant, Tolani, Femi and Bode decided to divide the bill evenly. If each person paid ■3 000, what was the total of the bill?

f) Apples cost ■20 each. A number, a, of apples is bought at a total cost of ■460. How many apples are bought?

g) I think of a number, triple it, and add 10. The answer is 16. What is the number I thought of?

Chapter-14 Term 2 - Topic 2: Simplification of algebraic expressions

Q-1 **Give the coefficient of each of the following.**

a) $m \times 8$

b) $-4y$

c) $\frac{3}{4} x$

d) p

e) $-b$

f) $3 \times 2 \times y$

Q-2 **Give the meaning of the following.**

a) 4r

b) 6y

c) 2w

d) –5q

e) 7g

f) 5d

g) –pq

h) h

i) –2y

j) d^2

Q-3 **Simplify:**

a) 2 × e

b) –3 × m

c) c × 6

d) b × –d

e) 5 × a × b

Q-4 **Consider the following lists of terms and choose the term that is not like the rest.**

a) 2, 2a, b, 3a

b) 2x, 5x, 5y, 3x

c) 7y, 7, 3y, 4y

d) 6x, 5x, 5x^2, 9x

e) ab, ba, 2ba, 3a

Q-5 **Simplify**

a) a + a + a

b) 2t + t

c) 2c + 3c

d) 5p + 2p

e) 4f + 9f

f) 7u – 3u

g) 6g – 2g

h) 9w – 2w

Q-6 **Group the like terms in these expressions.**

a) 6a + 12 + 2a + 5

b) 7b + 16 – 5b – 8

c) 15a – 3a + 5 – 2a + 7 + b

d) 3/2 x + 5/4 y – 1/2 x – 7/4 y

Q-7 **Simplify these expressions, where possible.**

a) 12x + 3x

b) 10y + 5 + 6y

c) 8n + 7n – 13n + 5

d) 5a + 6 + 3b + a – 7

e) 6t + 11q + 8

f) 9m – 5n – 10m – 2n

Q-8 **Simplify.**

a) 2a + 3b + 4a

b) 7v + 2u + 4v

c) 9f + 4g + 2f

d) 7c – 8d + 5c

e) 9u – 2u + 6v

f) 5a – 4a + 2b

g) 7j – 4j + 7k

Q-9 **Find the perimeter.**

a)

b)

c)

Q-10 **To find the next term, add the two bricks below it.**

a)

b)

c)

d)

Q-11 **Simplify.**

a) 2e × 3

b) 3d × 4

c) 2w × 5

d) 5 × 3d

e) 4 × 7g

f) 2 × 5d

g) 2q × 7

Q-12 **Calculate.**

a) 8 + (4 + 2)

b) (15 + 1) – 7

c) 8 – (2 + 6)

d) 10 + (7 – 1)

e) (4 + 2) – (9 – 2)

f) 28 + (4 – 2)

g) –(3 + 1) + (6 – 3)

h) 11 – (3 – 1)

Q-13 **Simplify.**

a) 2 + (2x + 3x)

b) x – (x – 1)

c) 12xy – (5xy + 4xy)

d) 3x – 2 + (x + 3)

e) 6x + (1 + x) + 3

f) (3x – 2x) + (4x – 2x)

g) (x – 3) – (2x + 1)

Q-14 **Write expressions for the following scenarios.**

a) One number is x and another number is 12 less. Write an expression for the sum of the two numbers.

b) A pencil costs ■p and an eraser costs ■q. What is the difference in cost between the two items?

c) The length of a rectangle is l and the breadth is b. Write an expression for the area of the rectangle.

d) For the rectangle above, write an expression for the perimeter.

e) If a number is m, write an expression for the sum of the next two consecutive numbers after m.

f) If one packet of sweets costs ■150, what is the cost of y packets of sweets?

g) Write down an expression for a boy's age if his sister is h years old and the boy is 3 years older than her.

Chapter-15 Term 3 - Topic 3: Simple equations

Q-1 **Say whether the following statements are true or false.**

a) $5 \times 2 + 3 = 2 + 11$

b) $100 = (9 + 1) \times (3 - 1)$

c) $3 \times 4 = 9 + 3$

d) $6 \times (3 + 1) = 6 \times 5$

e) $(5 - 2) \times 3 = 18$

Q-2 **Find the missing value in the following diagrams.**

a) $\rightarrow +6 \rightarrow \quad = 15$

b) $\rightarrow -14 \rightarrow \quad = 7$

c) $-5 \rightarrow \quad = 2$

d) $\times 4 \rightarrow \quad = 32$

e) $45 \rightarrow \quad = 9$

Q-3 **Each letter represents a number. Write the value of the letter.**

a) $x + 9 = 30$

b) $m + 13 = 12$

c) $p + 30 = 21$

d) $x - 1 = 3$

e) $-m + 1 = 9$

Q-4 **Each letter represents a number. Copy the number pattern. Write the value of the letter.**

a) 3, 6, 9, 12, v, 18

b) 5, 10, b, 20, 25, 30

c) p, 18, 27, 36, 45, 54

d) 4, 8, 12, 16, 20, g

e) 8, 16, j, 32, 40, 48

Q-5 **Fill in the algebraic expressions that have been left out below.**

a) The sum of 7 and the product of two different numbers.

b) The difference between half a number and 23.

c) A number squared.

d) The cube root of a number.

e) The square root of the sum of twice x and a third of y.

Q-6 **Translate the following into algebraic language.**

a) A man's age in five years' time.

b) The man's age doubled.

c) The man's age halved.

d) The man's age 2 years ago.

e) The number of days in x weeks.

Q-7 **Make an equation for each of the following word problems. You do not need to solve the equation.**

a) I think of a number, and then I double it. I get an answer of 12.

b) I think of a number, treble it, add 5 and get 12.

c) The three angles of a triangle are x, 2x and x + 1.

d) The three sides of a triangle are x, x + 1 and x – 1. The perimeter is 20 cm.

e) The four sides of a quadrilateral are x, x + 1, 2x and x + 1. The perimeter is 100 cm.

Q-8 **Draw a flow chart for the following statements, and then solve for the unknown number.**

a) A number multiplied by 7 and with 5 subtracted from it, is 51.

b) A number increased by 4 and multiplied by 3, is 60.

c) A number divided by 4 and with 3 subtracted from it, is 1.

d) A number has 4 added to it, 2 subtracted from it and is then divided by 5 to give 2.

e) A number has 3 subtracted from it, is divided by 5 and has 4 added to it. The final answer is 7.

Q-9 **Use the flow diagram to determine the input number.**

a)

b)

c)

d)

e)

Q-10 **Solve the following equations using inverse operations.**

a) $26 = 8 + v$

b) $3 + p = 8$

c) $15 + b = 23$

d) $-15 + n = -9$

e) $m + 4 = -12$

f) $x - 7 = 13$

Q-11 **Solve the following equations.**

a) $9x - 8 = -6$

b) $9x - 7 = -7$

c) $-5 = 5 + 2z$

d) $8n + 7 = 31$

e) $-4 = 4 + x/2$

f) $9 + 9n = 9$

Chapter-16 Term 3 - Topic 4: Plane shapes

Q-1 **Draw the following rectangles.**

a) l = 6.5 cm, b = 3.5 cm

b) l = 4 cm, b = 2.5 cm

c) l = 2 cm, b = 2 cm

Q-2 **Describe the properties of an isosceles triangle.**

Q-3 **Fill in the missing words.**

a) If it is a _____, then it has three angles.

b) If it is a triangle, then it also has _____ sides.

c) If it is a(n) _____ triangle, then all of its angles are equal.

d) If it is a right triangle, then one of its angles measures exactly _____ degrees.

e) If it is a(n) _____ triangle, then none of its angles are the same.

f) If it is an equilateral triangle, then it has _____ sides that are the same length.

Q-4 **Is the diameter of a circle a chord? Use algebraic expressions to justify your answer.**

Q-5 **Is the radius of a circle a chord? Use algebraic expressions to justify your answer.**

Q-6 **How are the radius and diameter different from the line segment labelled chord on your circle?**

Q-7 **What is the relationship between the length of the diameter of a circle and the length of the radius of that circle?**

Q-8 **Describe the circumference of a circle with respect to the centre of the circle.**

Q-9 **The side length of each square is 1 cm. Calculate the perimeter of the following shapes.**

a) shape (3a)

b) shape (3b)

c) shape (3c)

Q-10 **Find the perimeter of the following shapes.**

a)

b)

c)

d)

e)

Q-11 **Squares are positioned in a rectangular shape as shown alongside. If the outside perimeter is 72 m, what is the length of each square?**

Q-12 **Find the perimeter of the following parallelogram.**

DIAAAAAGGGRRRAAAMMM

Q-13 **Find the perimeter of the following trapezium.**

DIAAAAAGGGRRRAAAMMM

Q-14 **Find the perimeter of the following triangle.**

DIAAAAAGGGRRRAAAMMM

Q-15 **Calculate the perimeter of a square if the length of one side is 17.5 cm.**

Q-16 **One side of an equilateral triangle is 32 cm in length. Calculate the triangle's perimeter.**

Q-17 **A rectangle is 40 cm long and 25 cm wide. Calculate its perimeter.**

Q-18 **Calculate the perimeter of a rectangle that is 2.4 m wide and 4 m long.**

Q-19 **If the perimeter of a square is 48 m, what is the length of each side?**

Q-20 **Determine the perimeter of each shape**

Q-21 **Find the perimeter of each of the following shapes.**

a)

b)

c)

d)

e)

Q-22 **Calculate the circumference of each of the following circles.**

a) Radius 10 cm

b) Radius 18 metres

c) Diameter 12 cm

d) Diameter 16 cm

Q-23 **Calculate the diameter of a circle with circumference:**

a) 20 cm

b) 105 cm

c) 2.3 m

Q-24 **Find the circumference.**

a)

b)

Q-25 **Find the perimeter of each of the following shapes.**

a)

b)

c)

d)

e)

Q-26 **A bicycle wheel has a diameter of 40 cm.**

a) Calculate the circumference of the wheel.

b) Calculate how far the bicycle travels when the wheel revolves once.

c) How many complete revolutions does the wheel make to travel 80 m?

Q-27 **The length of a rectangular lawn is twice its breadth. If the perimeter of the lawn is 72 m, what is the breadth?**

Q-28 **In how many revolutions can a bicycle wheel of diameter 4.9 m cover a distance of 46.2 km?**

Q-29 **The breadth of a rectangular plot of land is one quarter of its length. If the perimeter is 360 m, determine the dimensions of the plot of land.**

Q-30 **A piece of wire is in a circular shape with radius 28 cm. The wire is reshaped into a rectangle with length 50 cm. What is the breadth of the rectangle?**

Q-31 **Francis ran around a playground 12 times. The playground is in the shape of a rectangle with a length of 240 m and breadth of 160 m. What distance did Francis run?**

Q-32 **The following diagram shows an equilateral triangle. The perimeter is 72 cm. Determine the value of x.**

a)

Q-33 **A rectangle with a perimeter of 64 cm is made up of three identical squares. What is the area of each square?**

Q-34 **A floor is 4 m long and 3.5 m wide.**

a) Determine the area of the floor.

b) Determine the cost if concrete costs ■240 per m^2.

Q-35 **Calculate the length of a rectangle if the breadth is 24 m and the area is 108 m^2.**

Q-36 **Find the area of each triangle.**

a)

b)

c)

d)

Q-37 **Find the base or height of each triangle.**

a) Area = 252 m^2

b) Area = 133 cm^2

Q-38 **Determine the area of each trapezium.**

a)

b)

c)

d)

Q-39 **The area of a trapezium is 67.965 cm². Find its height if the parallel sides are 5 cm and 8.8 cm respectively.**

Q-40 **Calculate the areas of the following circles. Use π = 3.142. Give your answer correct to one decimal place.**

a) Radius 3 cm

b) Radius 7.5 cm

c) Diameter 3.6 cm

Q-41 **If the radius is 39 m, what will the area of the circle be?**

Q-42 **The diameter of a cake is 94 mm. What is the maximum area available for the toppings?**

Q-43 **Calculate the area of a circle with a radius of 25 cm.**

Q-44 **What is the radius of a circle with an area of 450 cm²?**

Q-45 **The area of a circle is 324 m². Find the radius and hence the diameter of the circle.**

Q-46 **Find the formula for the area of the following shapes.**

a)

b)

Chapter-17 Term 3 - Topic 5: Three-dimensional figures

Q-1 **What is the volume of a cube that measures 1 cm on each side?**

Q-2 **Count how many cubes will cover the base of the box in the figure above.**

Q-3 **How many layers of these cubes can be used to reach the top height of the box?**

Q-4 **What is the volume, in cubic centimetres, of a solid that is 10 cm long, 8 cm wide and 6 cm in height?**

Q-5 **The solid is made up of unit cubes with edges of 1 cm. Find the volume of the solid.**

a)

Q-6 **Calculate the volume of a cuboid with:**

a) length = 72 cm, breadth = 50 cm, height = 25 cm

b) length = 4 ½ cm, breadth = 3 ■ cm, height = 1 ■ cm

Q-7 **Calculate, in cubic centimetres, the volume of a rectangular block of wood of length 2 m, breadth 10 cm and thickness 5 mm.**

Q-8 **The volume of a rectangular glass prism is 36 000 cm^3. Given the length of the prism is 40 cm and the breadth is 25 cm, how tall will the prism be?**

Q-9 **Calculate the volume of each cuboid.**

a)

b)

c)

d)

Q-10 **Construct right circular cylinders.**

a) Construct a right circular cylinder with base circumference 22 cm and height 10 cm (take π as 22/7).

b) Construct a right circular cylinder using a rectangle with length 44 cm and breadth 8 cm (take π as 22/7).

Q-11 **Find the volume of the following cylinders.**

a)

b)

c)

d)

Q-12 **A cylinder has a diameter of 12 cm and a height of 8 cm. Calculate the volume of the cylinder, giving your answer to the nearest cm^3.**

Chapter-18 Term 3 - Topic 6: Angles

Q-1 **Name the type of angle.**

a)

b)

c)

d)

Q-2 **Calculate the size of each angle marked with an arc.**

a)

b)

Q-3 **How many turns are formed by these angles?**

a) 420°

b) 450°

c) 540°

d) 1080°

Q-4 **State whether the following angles are acute, obtuse, right angle or reflex.**

a) 32°

b) 96°

c) 145°

d) 293°

e) 352°

f) 123°

Q-5 **In the following diagram name two right angles, two obtuse angles and two acute angles.**

a) Two right angles

b) Two obtuse angles

c) Two acute angles

Q-6 **Draw an analogue clock with the hour hand at 12 noon and the minute hand at 12. How many turns has the hour hand made at?**

a) 1 o'clock

b) 4 o'clock

c) 7 o'clock

d) 9 o'clock

e) 12 midnight

Q-7 **Use a protractor to accurately measure the five angles shown in the diagrams.**

a) (diagram a)

b) (diagram b)

c) (diagram c)

d) (diagram d)

e) (diagram e)

Q-8 **Complete the following statements:**

a) 2/5 turn = … degrees

b) 4/3 turns = … degrees

c) 31/36 turns = … degrees

d) 2 revolutions = … degrees

e) 135° = … turns

Q-9 **Use a protractor, a ruler and a sharp pencil to construct angles with the following sizes.**

a) $\angle ABC = 26°$

b) $\angle DEF = 120°$

c) $\angle PQR = 200°$

d) $\angle XYZ = 345°$

e) $\angle NBM = 255°$

Q-10 **Consider the diagram below.**

a) Name four vertices.

b) Name all the adjacent angles.

c) Name all the angles around a point.

Q-11 **State the angle vertically opposite.**

a) x

b) y

c) t

Q-12 **Calculate the values of the missing angles.**

a)

b)

c)

d)

Q-13 **In the diagram on the right, measure ∠R■ and ∠R■ to determine their sizes. What do the angles add up to?**

Q-14 **What is the complement of 30°?**

Q-15 **68° is the complement of …?**

Q-16 **41° is the supplement of …?**

Q-17 **What is the supplement of 83°?**

Q-18 **The complement of x is …?**

Q-19 **What is the supplement of 90° – x?**

Q-20 **90° – x is the complement of …?**

Q-21 **Is it possible to have a complement of 90° + x? Explain.**

Q-22 **Decide whether the following sets of numbers are complementary, supplementary or neither.**

a) 26° and 54°

b) 45°, 89° and 46°

c) 35° and 65°

d) 124° and 56°

Q-23 **Find the unknown angles.**

a)

b)

c)

d)

Q-24 **Find the value of angle x.**

a)

b)

c)

d)

Q-25 **Find the value of the unknown angle in each of the triangles.**

a)

b)

c)

d)

Chapter-19 Term 3 - Topic 7: Construction

Q-1 **Copy the following angles.**

a) (diagram a)

b) (diagram b)

Q-2 **For each of the following angles, draw a line AB and use point A to construct the angles.**

a) 60°

b) 90°

Q-3 **Construct line PQ = 7 cm. Construct ∠QPR = 60° without a protractor. Use a protractor to construct ∠QRR = 30°.**

a) Measure the size of PRQ.

b) What do you notice about the sum of the angles?

c) Measure PR and QR to the nearest centimetre.

d) Now, find the perimeter of ΔPQR.

Q-4 **Solve these:**

a) Construct line segment BP = 7.2 cm.

b) Construct the perpendicular bisector of BP.

c) Measure 3 cm along the perpendicular bisector and label the point M.

d) Connect B to M and P to M. Measure BM and PM.

e) What type of triangle is BMP? Give a reason for your answer.

Q-5 **Draw a line 124 mm, label it AB, and construct its perpendicular bisector XY. P is the point where XY bisects AB. Write instructions describing how to construct a perpendicular bisector.**

Q-6 **Solve these:**

a) Construct line AB = 6 cm.

b) Draw the perpendicular bisector of AB. Label the midpoint O.

c) Construct ∠BAC = 38°, cutting the perpendicular at C. Measure ∠OCA.

d) What do the angles in the triangle add up to?

Q-7 **Construct the perpendicular bisector of each side of a given triangle. What do you notice?**

Q-8 **Draw two circles of equal size that overlap. A and B are centres of the two circles. Join the points where the circles intersect C and D. Join up the centres A and B. AB and CD intersect at X. Measure the following and comment on your findings.**

a) AX and XB

b) CX and XD

Q-9 **Copy the line and point into your exercise book. Construct a parallel to the line through the given point.**

Q-10 **Complete the unfinished construction below and write down the steps.**

Q-11 **Use your completed construction from Question 7. Measure 5 cm along the lower parallel line. Mark point R. Measure 5 cm along the top parallel line. Mark point Q. Connect point R and Q.**

a) What shape is OPQR?

b) Name four other shapes that have parallel sides.

Chapter-20 Term 3 - Topic 8: Need for statistics

Q-1 **The following table shows education statistics for Nigeria.**

a) Who will use the statistics provided in the table?

b) Explain why government will find these statistics useful.

c) Do you think your school principal will be interested in these statistics? Give a reason for your answer.

Q-2 **Give an example of statistics that the following people will find useful.**

a) A teacher

b) A policeman

c) A doctor

d) A shop owner

e) A business man

Q-3 **Find the latest version of your local newspaper. Find as many examples of statistics in the newspaper as possible. For each example explain who will use the statistics and for what reason.**

Chapter-21 Term 3 - Topic 9: Data collection

Q-1 **A school wants to open a snack shop. They want to sell pizza, sandwiches, soup and chips.**

a) Design five questions for a questionnaire to find out what students would buy.

b) Describe how you would count and tally the data.

Q-2 **Two hundred Form 1 students are to be asked how long they spend doing their homework each night. Design a suitable questionnaire to answer this question.**

Q-3 **Biola recorded different colour cars that drove past in an hour. Complete the frequency table below.**

Q-4 **Complete the frequency table for the animals Tinuke saw on his walk.**

a) Complete the frequency table for the animals Tinuke saw on his walk.

b) How many dogs did he see?

c) How many parrots did he see?

d) How many animals did he see in total?

Q-5 **Kunbi asks her friends to identify their favourite subject. These are the responses she received:**

a) Draw up a frequency table to represent the data.

b) How many people did she ask?

c) What is the difference between the English and the Mathematics tally?

d) What is the favourite subject overall?

Q-6 **Construct a frequency table for these data items.**

Chapter-22 Term 3 - Topic 10: Data presentation

Q-1 **Find the mean, mode and median for the following data sets.**

a) 19 23 18 21 17 17 19

b) 6 9 3 5 3 7 3 4

c) 14 14 19 20 12 14 18 16

d) 6.7 cm 7.2 cm 6.4 cm 7.3 cm 7.2 cm 4.2 cm

e) 257 ml 298 ml 172 ml 193 ml 240 ml 276 ml 301 ml 251 ml

Q-2 **Find the mean from the following tables of values.**

a) Shoe size 5 6 7 8 9 Frequency 1 2 4 3 2

b) Weight (kg) 35 36 37 38 39 Frequency 2 5 6 1 1

c) Petals on a flower 9 10 11 12 13 Frequency 9 14 17 21 6

Q-3 **The mass of 8 adults are 67 kg, 98 kg, 75 kg, 76 kg, 85 kg, 59 kg, 91 kg and 72 kg respectively. Find the mean and the median mass of the group of adults.**

Q-4 **The temperature in degrees Celsius was measured at 13:00 each day for 10 days. Here are the results: 22°, 19°, 27°, 26°, 21°, 22°, 18°, 31°, 32°, 20°.**

a) Find the mean, median and modal temperatures for the period.

b) Which average best describes the temperature during this period? Explain your answer.

Q-5 **The daily rainfall in mm for two weeks is given below. Week 1: 14 13 11 15 18 13 14. Week 2: 27 31 29 0 9 0 0. Find the mean daily rainfall for each week.**