

MATHEMATICS-11 (ALGEBRA AND TRIGONOMETRY)

CHAPTER 1: NUMBER SYSTEMS

Classwork: Example 6: (pg.10), Exercise 1.1: Q.1(iii), Q.2(i,vi,x), Q.4(i), Example 1:(pg.15), Exercise 1.2: Q.4(iv), Q.5(i), Q.9,12, Q.14(ii), Q.15(ii), Q.16(i), Example 1: (i)(pg.20), Theorems(iii,iv,vi) (pg.21), Example 2: (pg.24), Example 3: (pg.24 & 25), Exercise 1.3: Q.2(iii), Q.4, Q.5(iii), Q.6(ii), Q.7(i)

Homework: Exercise 1.1: Q.1(iv), Q.2(vii,ix,xi,xii), Q.4(ii), Q.5, Exercise 1.2: Q.4(i,iii), Q.5(iii), Q.8,11, Q.14(i), Q.15(i,iii), Q.16(ii), Example 5: (i)(pg.27), Exercise 1.3: Q.2(ii,iv), Q.5 (ii,iv), Q.6(i)

CHAPTER 2: SETS, FUNCTIONS AND GROUPS

Classwork: Example 4: (pg.33), Exercise 2.1: Q.1(iii), Q.2(i,v), Q.4(viii), Q.8(vi), Q.9(ii), Q.10(i), Exercise 2.2: Q.1(iii), Q.2(i), Q.4(iii,vi), Q.5(ii), Q.6(i), Exercise 2.3: Q.1(i), Q.3, Q.6(ii) Q.7(i), Example 4: (pg.53), Exercise 2.4: Q.1(i), Q.2(iii), Q.3(i,ii), Q.7(i) Q.9(i), Exercise 2.5: Q.1, Exercise 2.6: Q.1(iii) Q.4(ii), Example 5: (pg.65), Example 6: (pg.66), Exercise 2.7: Q.3, Example 2: (pg.71), Solution of Linear Equations(pg.76), Reversal Law of Inverses(pg.77), Exercise 2.8: Q.5

Homework: Exercise 2.1: Q.1(xi), Q.2(vi,ix,xii,xvi), Q.4(i,ii), Q.8(ii), Q.9(iv), Q.10(vi,vii), Exercise 2.2: Q.1(iv,v), Q.2(ii), Q.4(ii,vii), Q.5(iii,iv), Q.6(ii), Exercise 2.3: Q.6(iii), Q.8, Q.7(ii), Exercise 2.4: Q.1(iii), Q.2(ii), Q.3(iv), Q.4(ii,iii), Exercise 2.5: Q.4, Exercise 2.6: Q.1(ii,iv), Q.4(iv,v), Exercise 2.7: Q.4, Example 7: (pg.72), Exercise 2.8: Q.6

CHAPTER 3: MATRICES AND DETERMINANTS

Classwork: Adjoint of a 2×2 Matrix(pg.90), Example 4: (pg.92), Example 5: (pg.94), Exercise 3.1: Q.2, Q.3(i), Q.5,8, Q.12(ii), Exercise 3.2: Q.3(ii), Q.5(i), Q.6(iii), Q.8(ii), Example 2: (pg.104), Example 7: (pg.110), Exercise 3.3: Q.2(iii), Q.3(iii,xi), Q.5(v), Q.8,11, Example 3: (pg.125), Exercise 3.4: Q.6(i), Q.8, Q.10(iii), Example 3: (pg.137), Exercise 3.5: Q.1(i), Q.3(ii)

Homework: Exercise 3.1: Q.3(ii), Q.9, Q.12(i), Exercise 3.2: Q.2(ii), Q.4(iv), Q.7(i), Q.9(ii), Exercise 3.3: Q.1(i), Q.2(i,ii), Q.3(ii,iv), Q.4(ii), Q.5(i,iii), Q.6(i,iii), Q.14(i), Q.16, Exercise 3.4: Q.2(ii), Q.5, Q.10(ii), Q.8,11, Exercise 3.5: Q.1(iii), Q.2(ii), Q.4(ii), Q.5(ii), Q.6

CHAPTER 4: QUADRATIC EQUATIONS

Classwork: Exercise 4.1: Q.3,8,9,19, Example 1: (pg.143), Exercise 4.2: Q.1,5,10,19, Exercise 4.3: Q.2,5,11, Three Cube Roots of Unity(pg.151), Properties of Cube Roots of Unity(ii)(pg.152), Four Fourth Roots of Unity (pg.154), Exercise 4.4: Q.2(iii), Q.3(i), Q.5, Example 2: (pg.157), Example 4: (pg.158), Exercise 4.5: Q.1,7,11, Exercise 4.6: Q.1(vi), Q.3(iv), Q.6, Q.7(v), Example 1: (ii)(pg.165),

Exercise 4.7: Q.1(iv), Q.2(i), Exercise 4.8: Q.1,6,9, Exercise 4.9: Q.2,8, Exercise 4.10: Q.2,5
Homework: Exercise 4.1: Q.2,5,6,10,12,15,17,18, Exercise 4.2: Q.4,11,14,17,18,22,24,
Exercise 4.3: Q.4,6,10, Exercise 4.4: Q.2(i,v), Q.4,6,7, Q.8(i,iii),
Exercise 4.5: Q.10,12,14,15,16, Exercise 4.6: Q.1(i,ii), Q.2, Q.3(i), Q.7(i,vi), Q.8,
Exercise 4.7: Q.1(ii,iii), Q.3(i), Q.5,7, Exercise 4.8: Q.4,7,10, Exercise 4.9: Q.3,5,10,
Exercise 4.10: Q.4,6

CHAPTER 5: PARTIAL FRACTIONS

Classwork: Example 1: (pg.180), Exercise 5.1: Q.5, Example 1: (pg.184),
Example 2: (pg.184), Exercise 5.2: Q.4,9, Example 1: (pg.186), Exercise 5.3: Q.1,10,
Example 1: (pg.188)

Homework: Exercise 5.1: Q. 4,7,10, Exercise 5.2: Q.6,11, Exercise 5.3: Q.3,6,8

CHAPTER 6: SEQUENCES AND SERIES

Classwork: Example 2: (pg.190), Exercise 6.1: Q.1(iii,viii), Q.2(v), Example 3: (pg.193),
Example 4: (pg.194), Exercise 6.2: Q.2,6,13, Example 1: (pg.195), Exercise 6.3: Q.1(ii),
Q.6, Exercise 6.4: Q.2(ii), Q.6, Exercise 6.6: Q.2, Q.7(ii), Q.8,12, Exercise 6.7: Q.1(ii),
Q.2(i), Example 3-6: (pg.213 & 214), Exercise 6.8: Q.1, Q.5(iii), Q.6(ii), Q.13,
Example 1: (pg.219), Relations Between Arithmetic, Geometric and Harmonic
Means(pg.222), Exercise 6.10: Q.1(ii), Q.6,9,16

Homework: Exercise 6.1: Q.1(ii,v,vi,vii), Q.2(i), Q.3(ii,iv), Exercise 6.2: Q.4,7,8,9,12,
Exercise 6.3: Q.3,4,7, Exercise 6.4: Q.2(iii,v), Q.3(i), Q.4(ii), Q.11,14,15,16,
Exercise 6.6: Q.1,3,9,14, Exercise 6.7: Q.1(i), Q.2(ii), Q.3(i), Q.4,6, Exercise 6.8: Q.4,
Q.5(ii), Q.6(i,iv), Q.8,9 Q.12(i), Q.14, Exercise 6.10: Q.1(i), Q.2(ii), Q.7,8,12,13, Q.14(i),
Q.15(i), Q.17

CHAPTER 7: PERMUTATION, COMBINATION AND PROBABILITY

Classwork: Example 2 & 3: (pg.230), Exercise 7.1: Q.1(vii,x), Q.2(vi,ix),
Exercise 7.2: Q.1(v), Q.2(ii), Q.7, Example 3: (pg.238), Exercise 7.3: Q.1(ii), Q.4,12,
Complementary Combination (pg.240), Example 1-3: (pg.241), Exercise 7.4: Q.1(ii),
Q.2(i), Q.9(i), Example 1 & 2: (pg.244 & 245), Exercise 7.5: Q.3(ii), Q.5(i), Q.10(i),
Exercise 7.7: Q.3,6, Exercise 7.8: Q.3,8

Homework: Exercise 7.1: Q.1(vi,ix), Q.2(v,viii,x), Exercise 7.2: Q.1(i,iii), Q.2(i,iii),
Q.3,4,6,10,11, Exercise 7.3: Q.1(iii), Q.3,11, Exercise 7.4: Q.1(i,iii), Q.2(ii,iii), Q.3(i),
Q.4,10, Exercise 7.5: Q.3(i), Q.5(ii), Q.10(ii), Exercise 7.7: Q.2,5, Exercise 7.8: Q.4,9

CHAPTER 8: MATHEMATICAL INDUCTION AND BINOMIAL THEOREM

Classwork: Example 6: (pg.262), Exercise 8.1: Q.2,4,13,20, Example 2: (pg.269),
Example 5: (pg.272), Exercise 8.2: Q.1(i), Q.2(ii), Q.7(i), Example 2: (pg.276),
Example 4: (pg.278), Exercise 8.3: Q.1(ii,vi,viii), Q.2(vi,ix), Q.4(iv,vi), Q.9

Homework: Exercise 8.1: Q.1,3,5,7,14,24, Exercise 8.2: Q.1(ii,vi), Q.2(i,iii), Q.6(i),
Q.9(i), Q.10(i,ii), Exercise 8.3: Q.1(i,iii,iv,v), Q.2(i,iii), Q.3(i,ii), Q.4(i,ii), Q.5,7,11,12,13

CHAPTER 9: FUNDAMENTALS OF TRIGONOMETRY

Classwork: Example 4 & 5: (pg.290), Exercise 9.1: Q.1(vi,xvi), Q.2(viii), Q.5(i), Q.13,

Fundamentals Identities (pg.297), Exercise 9.2: Q.3(iv,v), Q.4(ii), Q.8,
Exercise 9.3: Q.1(ii,iii), Q.2(ii), Q.3(iii), Example 1-4: (pg.3,10&11),
Exercise 9.4: Q.2,4,8,11,14,21

Homework: Exercise 9.1: Q.1(ix,xii,xiii), Q.2(ii,vi,x,xii,xv), Q.3, Q.4(i), Q.5(ii), Q.6(i),
Q.7,11,15, Exercise 9.2: Q.3(i,vi), Q.4(i,v), Q.5,6, Exercise 9.3: Q.1(i,iv), Q.2(i),
Q.3(i,ii), Q.4, Q.5(iv,vii), Q.6(v,ix), Exercise 9.4: Q.5,6,7,9,10,12, 13,15,20

CHAPTER 10: TRIGONOMETRIC IDENTITIES

Classwork: Example 2: (pg.320), Exercise 10.1: Q.1(ii), Q.2(v), Q.3(iii), Q.4(i),
Exercise 10.2: Q.1(iii,vi), Q.3(ii), Q.7(ii), Q.11, Example 1: (pg.330),
Exercise 10.3: Q.1(ii), Q.3,13, Example 2: (pg.334), Example 3 & 5: (pg.335),
Exercise 10.4: Q.1(ii,viii), Q.2(ii), Q.3(iii)

Homework: Exercise 10.1: Q.1(v,vi), Q.2(iii,ix), Q.3(i,ii,iv), Q.5(i,iii,iv),
Exercise 10.2: Q.1(i,vii), Q.2(iv,v), Q.4(i,iii,v), Q.5, Q.7(i), Q.10(i),
Exercise 10.3: Q.1(i), Q.2,6,8,9,11, Exercise 10.4: Q.1(i,iii,iv,v), Q.2(v,vi), Q.3(ii), Q.4

CHAPTER 11: FUNDAMENTALS OF TRIGONOMETRY

Classwork: Exercise 11.1: Q.2,7,9

Homework: Exercise 11.1: Q.3,5,7,10,15

CHAPTER 12: APPLICATION OF TRIGONOMETRY

Classwork: Exercise 12.1: Q.1(i,ix), Q.2(ii), Exercise 12.2: Q.2,5, Exercise 12.3: Q.1,5,
Exercise 12.4: Q.1, Exercise 12.5: Q.1,5,8, Exercise 12.6: Q.1,8, Exercise 12.7: Q.1(ii),
Q.2(ii), Q.3(iii), Q.5, Proof (pg.379), Example 1: (pg.381), Example 3: (pg.383),
Exercise 12.8: Q.1(ii), Q.3(ii), Q.5(ii), Q.6(ii), Q.7(ii), Q.11

Homework: Exercise 12.1: Q.1(iii,v), Q.2(i,vi), Exercise 12.2: Q.3,4,
Exercise 12.3: Q.3,6,9, Exercise 12.4: Q.3,5, Exercise 12.5: Q.3,4,7,10,
Exercise 12.6: Q.2,6,7,10, Exercise 12.7: Q.1(i), Q.2(i), Q.3(i), Q.4,
Exercise 12.8: Q.1(i), Q.3(iii), Q.5(iv), Q.6(i), Q.7(i), Q.12

CHAPTER 13: INVERSE TRIGONOMETRIC FUNCTIONS

Classwork: Example 2: (pg.390), Example 4: (pg.396), Exercise 13.1: Q.1(iii,ix), Q.2(ii),
Q.3(i,v,ix), Exercise 13.2: Q.3,11,14,19

Homework: Exercise 13.1: Q.1(iv,v,vi), Q.2(i,iii), Q.3(iii,iv,vii),
Exercise 13.2: Q.1,2,6,12,17,18

CHAPTER 14: SOLUTIONS OF TRIGONOMETRIC EQUATIONS

Classwork: Example 1-3: (pg.401&402), Example 1,2,4,5: (pg.403,405 & 406), Q.14,
Q.1(i,iii), Q.2(ii,iv), Q.4,6

Homework: Exercise 14: Q.1(ii,iv), Q.2(i,iii), Q.3,5