**Gr. 11 MATHEMATICS 2016 REVISION EXERCISES**

**ALGEBRA AND EQUATIONS AND INEQUALITIES 45 marks from PAPER 1**

**PART A: EXPONENTS AND SURDS**

1. Simplify the following exponential expressions without using a calculator:

1.1 

1.2 

1.3 

1.4 

1.5 

1.6 

1.7 

1.8 

1.9 

1.10 

1.11 

1.12 

1.13 

2. Simplify the following surd expressions:

2.1 

2.2 

2.3 

2.4 

3. Write in surd form:

3.1 

3.2 

4. Write in exponential form:

4.1 

4.2 

5. Solve for *x*:

5.1 

5.2 

5.3 

5.4 

5.5 

5.6 

5.7 

5.8 

5.9 

5.10 

5.11 

5.12 

5.13 

5.14 

6. Solve the following surd equations:

6.1 

6.2 

6.3 

6.4 

6.5 

6.6 

**7. Questions from DBE CAPS Gr. 11 Papers:**

7.1 Exemplar 2013 Paper 1

no. 1.2; 2.2 and 3.2.

7.2 Nov. 2014 Paper 1

no. 1.1.3; 2

7.3 Nov. 2015 Paper 1

no. 1.1.2; 1.1.3; 2.1 and 2.3

7.4 Nov. 2016 Paper 1

 no. 2

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**ALGEBRA AND EQUATIONS AND INEQUALITIES 45 marks from PAPER 1**

**PART A: EXPONENTS AND SURDS**

1.1 

1.2 8

1.3 2

1.4 4

1.5 

1.6 

1.7 

1.8 

1.9 

1.10 

1.11 60

1.12 2

1.13 

2.1 

2.2 

2.3 

2.4 

3.1 

3.2 

4.1 

4.2 

5.1 4

5.2 

5.3 

5.4 125

5.5 no solution

5.6 no solution

5.7 no solution

5.8 

5.9 

5.10 4

5.11 2

5.12 0

5.13 0; 1

5.14 1

6.1 19

6.2 no solution

6.3 1

6.4 3

6.5 8

6.6 

**7.1 Exemplar 2013 Paper 1**

1.2.1 25

 1.2.2 

 2.2.1 

 2.2.2 *t*

 3.2.1 

 3.2.2 1

 3.2.3 

**7.2 Nov. 2014 Paper 1**

1.1.3 84

 2.1 

 2.2 

 2.3 *x*

**7.3 Nov. 2015 Paper 1**

1.1.2 4

 1.1.3 9

 2.1.1 128

 2.1.2 

 2.3 13

**7.4 Nov. 2016 Paper 1**

 2.1.1 $\frac{1}{5}$

 2.1.2 $-\frac{1}{2}$