Elgin Academy Summer Revision – Solutions

Task 1

1	**B**
2	**D**
3	**C**
4	**A**
5	**B**
6	**C**
7	**A**
8	**D**
9	**C**
10	**C**
11	**D**
12	**D**
13	**B**
14	**C**
15	**B**
16	**D**
17	**D**
18	**C**
19	**C**
20	**C**

Task 2

1 $\frac{5x}{6}$

- common denominator $\frac{x}{6}+\frac{4x}{6}$
- expressed as single fraction $\frac{5x}{6}$

2 $27a^{-6}$

- evidence of cubing 27…
- correct index … a^{-6}

3 $4\sqrt{5}$

- evidence of distance formula AB = 8 & BC = 4
  or alternative
- using formula correctly $AC^2 = 80$
- answer expressed as simplified surd $AC = 4\sqrt{5}$

4a) **a = 4, b = 1**

- identifies amplitude — a = 4
- identifies vertical shift — b = 1

4b) constructs equation from given facts $4\sin x^0 + 1 = 3$

- solves to find acute angle $x = 30^0$

- clearly states **both coordinates** $P(30,3), Q(150,3)$