



University Maths  
Olympics 2011

# Answer Sheet

Note: **Units are not required**

Qn	Answer	Notes/Alternate
<b>1</b>	8	
<b>2</b>	700	
<b>3</b>	25	
<b>4</b>	$\frac{\pi}{2} - 1$	$\frac{\pi - 2}{2}$
<b>5</b>	$b < c < a$	Correct ascending order
<b>6</b>	124/125	0.992
<b>7</b>	4	
<b>8</b>	$\frac{\pi}{3}$	
<b>9</b>	5040	
<b>10</b>	$62 + \frac{106}{\pi}$	$\frac{62\pi + 106}{\pi}$
<b>11</b>	987652413	
<b>12</b>	$1 + \frac{3\pi}{4}$	$\frac{4 + 3\pi}{4}$
<b>13</b>	7651	

Qn	Answer	Notes/Alternate
<b>14</b>	5462	
<b>15</b>	9031	
<b>16</b>	$\frac{20}{3}$	
<b>17</b>	$\frac{\pi}{3} - \sqrt{3} + 1$	$\frac{\pi - 3\sqrt{3} + 3}{3}$
<b>18</b>	$\frac{102}{343}$	
<b>19</b>	$\frac{33}{65536}$	$\frac{33}{4^8}$
<b>20</b>	$\frac{4^{m+n}}{(m+n)!}$	