


# 2016 Four-by-Four Competition Answer Key

1.	500	<b>1</b>	21.	$.275$ or $\frac{11}{40}$	<b>21</b>
2.	$.069\bar{4}$ or $\frac{5}{72}$	<b>2</b>	22.	3	<b>22</b>
3. or flipped and/or rotated		<b>3</b>	23.	Tetrahedron	<b>23</b>
4.	279	<b>4</b>	24.	497,420	<b>24</b>
5.	108	<b>5</b>	25.	$10\sqrt{3}$	<b>25</b>
6.	945	<b>6</b>	26.	$\begin{bmatrix} 5 & -7 \\ -2 & 3 \end{bmatrix}$	<b>26</b>
7.	$1728\pi$	<b>7</b>	27.	6	<b>27</b>
8.	280	<b>8</b>	28.	41	<b>28</b>
9.	224	<b>9</b>	29.	-64	<b>29</b>
10.	15	<b>10</b>	30.	$\frac{1}{2}\ln\frac{5}{2}$ or $\ln\frac{5}{4}$	<b>30</b>
11.	$.430\bar{5}$ or $\frac{31}{72}$	<b>11</b>	31.	135	<b>31</b>
12.	5	<b>12</b>	32.	4	<b>32</b>
13.	$96\pi$	<b>13</b>	33.	$-\sqrt{3}$	<b>33</b>
14.	7820	<b>14</b>	34.	$45\sqrt{33}$	<b>34</b>
15.	$C4_{16}$ or $C4$	<b>15</b>	35.	$\frac{7-\sqrt{17}}{2}$	<b>35</b>
16.	$\frac{1}{4620}$	<b>16</b>	36.	296	<b>36</b>
17.	18	<b>17</b>	37.	$\frac{\sqrt{93}}{3}$	<b>37</b>
18.	36	<b>18</b>	38.	(224,0)	<b>38</b>
19.	2475	<b>19</b>	39.	51,176	<b>39</b>
20.	542	<b>20</b>	40.	$\frac{61+\sqrt{6637}}{18}$	<b>40</b>

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