April 27th

Here is a square based pyramid

How many faces does it have? 5
How many edges does it have? 8
How many vertices does it have? 5

Find the totals for the first 4 lines
Answer 1, 4, 9, 16

Write down the special name given to these totals
Square Numbers

A four-sided spinner has the numbers 1, 3, 5 and 7 on it.
A dice has the numbers 2, 4, 6, 8, 10 and 12 written on it.

In a game they are spun/rolled and their scores are added together.

Complete this table to show all the outcomes

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>13</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
<td>24</td>
<td>18</td>
<td>20</td>
<td>22</td>
<td>24</td>
</tr>
</tbody>
</table>

What is the probability that the sum of the two scores is less than 14?

\[ \frac{18}{24} = \frac{9}{12} \]

\[ \frac{3}{4} \]
### 5-a-day Foundation

**Draw the line of best fit on this scatter graph**

---

A dice is rolled 300 times.

How many 3’s would you expect?

\[
\frac{1}{6} \times 300 = 50
\]

---

**Complete this table for \(x + y = 5\)**

<table>
<thead>
<tr>
<th>(x)</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(y)</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

---

**How much would it cost to deliver the furniture 10 miles?**

\[ \text{£20} \]

---

This graph shows the cost of delivering furniture

**The cost is £50, how far was the furniture delivered?**

\[ 40 \text{ miles} \]
### 5-a-day

<table>
<thead>
<tr>
<th>April 27</th>
<th>Draw $y = 6 - x$</th>
</tr>
</thead>
</table>

What is the gradient of the line?

-1

### Higher

<table>
<thead>
<tr>
<th>A line is parallel to the line above and passes through (0, 9). What is its equation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y = -x + 9$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A line is perpendicular to the line above. It passes through (1, 8). What is its equation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y = x + 7$</td>
</tr>
</tbody>
</table>

### Solve

2$y^2 - y - 15 = 0$

$(2y + 5)(y - 3) = 0$

$y + 5 = 0$  
$y - 3 = 0$

or

$y = -2.5$  
$y = 3$

### Calculate the length of the hypotenuse.

Give your answer as a surd.

$\sqrt{7} \times (\sqrt{7})^2 + (\sqrt{5})^2 = x^2$

$x^2 = 7 + 5$

$x = \sqrt{12}$  
or $\sqrt{2\sqrt{3}}$