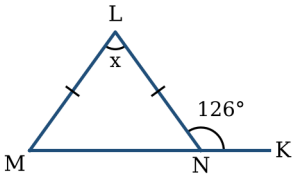
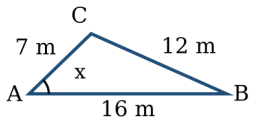
| Day 282 | A Tier 10-a-day |
|---|---|
| **1** PQR is an isosceles triangle with PQ = PR.<br>QRS is a straight line.<br>Angle PRS = 126°.<br>Work out the size of angle x.<br>The diagram is not drawn accurately.<br><br> | |
| **2** Here are the ingredients for 4 pancakes.<br>Butter: 60 g<br>Water: 300 ml<br>Milk: 100 ml<br>(a) Work out how much butter is needed for 18 pancakes.<br>(b) Hannah has 2756 ml of water. What is the greatest number of pancakes she can make? | |
| **3** A triangle has sides of length 15 m, 9 m and 12 m.<br>Is the triangle right-angled?<br>You must show your working. | |
| **4** A machine exerts a force of 300 N on the floor.<br>The pressure on the floor is 150 $N/m^2$.<br>Work out the area of the machine in contact with the floor. | |
| **5** Chloe invests £8,000 in a savings account. (Calculator)<br>The account pays compound interest at 2% per year.<br>Work out the value of the investment after 5 years. | |

| Day 282 | A Tier 10-a-day |
|---|---|
| **6** Two fair dice are thrown.<br>The two scores are multiplied together.<br>Work out the probability that the product is greater than 15. | |
| **7** Solve $x^2 - 9x > 0$ | |
| **8** Work out the size of angle x. (Calculator)<br>Give your answer to 1 decimal place.<br>The diagram is not drawn accurately.<br> | |
| **9** The graph of y = f(x) has a maximum point at (−1, 4).<br>Write down the coordinates of the turning point of the graph of<br>(a) y = f(x + 1)<br>(b) y = 3f(x) | |
| **10** Ryan invests £4,500 in a savings account. (Calculator)<br>Compound interest is paid at a fixed rate each year.<br>After 3 years the investment is worth £7,776.<br>Work out the annual rate of interest. | |