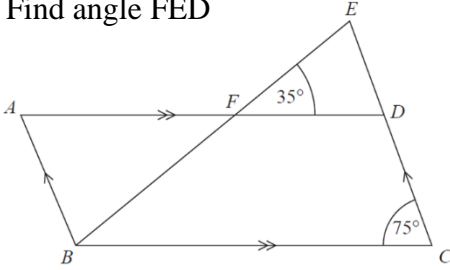
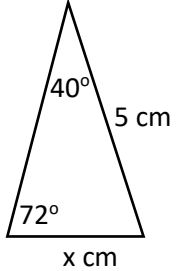


YEAR 11 HOMEWORK – 3R

Complete the questions in each box. Make sure that you show all of your workings

<p>1. There are 3 rods of length: $a - 2$, $6a$ and $a + 4$ The total length of the 3 rods is L cm</p> <p>Find a formula for L. Write it in its simplest form.</p>	<p>2. Solve $2p + 3 = 15$</p>
<p>3. $(-3) + (-5)$</p>	<p>4. Raju records the mass in kg of 16 newborn babies. Draw a stem and leaf diagram for his results and write the range and median. 3.1, 1.2, 2.5, 4.2, 3.6, 2.3, 3.7, 1.8, 2.4, 3.7, 3.1, 3.9, 1.5, 4.4, 2.0, 3.2</p>

<p>5. There are 30 children in a nursery school. At least 1 adult is needed for every 7 children in the nursery. Work out the least number of adults needed in the nursery.</p>	<p>6. A theatre sells 40 tickets at £10 each and n tickets at £5 each. Write down a formula for the total cost P of the tickets</p>
<p>7. Find the highest common factor of 90 and 18</p>	<p>8. The sweets in a bag are in the ratio 3 orange to 2 yellow. There are 51 orange sweets in the bag. What is the total number of sweets?</p>
<p>9. $ABCD$ is a parallelogram. EDC is a straight line. F is the point on AD so that BFE is a straight line. Find angle FED</p> 	<p>10. Use sine rule to find x</p> 

11. The table shows the heights of 150 students:

Height (cm)	Frequency
$120 < h \leq 130$	2
$130 < h \leq 140$	20
$140 < h \leq 150$	38
$150 < h \leq 160$	57
$160 < h \leq 170$	21
$170 < h \leq 180$	9
$180 < h \leq 190$	3

- a) Write the modal class
b) Estimate the mean height

12.

Solve the equation $x^2 + 6x = 0$

13. Solve the inequality

$$3x + 2 \geq 14$$

14. The table shows boys and girls info from y8 and 9.

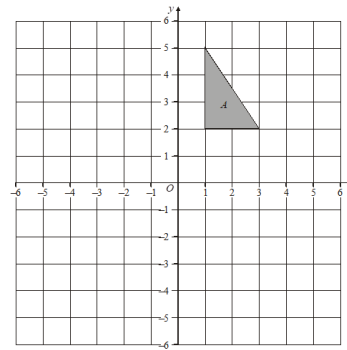
	Y8	Y9
Boys	52	48
Girls	68	52

Find the probability that a student chosen at random is a girl from year 9

15. Three people take 4 hours to paint a fence. How long will it take 5 people? Give your answer in hours and minutes.

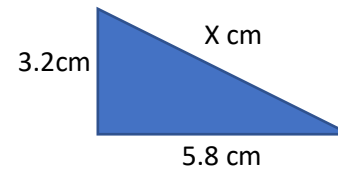
16. Tim drives at an average of 50km per hour for 4 hrs 15 minutes. Work out how many kilometres he drives

17. Reflect the triangle in the y axis



18. A pack of 77 pencils costs £1.47. In a different shop, a pack of 88 pencils costs £1.52. Which pack is better value?

19. Use Pythagoras theorem to find the value of X



20. Write down the exact value of:

- a) $\cos 0$
b) $\sin 90$
c) $\tan 0$

WWW

EBI 1

EBI 2