

## Lighthouse 6 (Checkpoint 4)

1. Complete this times table grid

X	-3a	8b	+6c
7e			
-9f			
6a			

2. Simplify  $48ab^3 \div 8a^4b$

3. Round 0.00917 to

a) 1 sf      b) 2 sf

4. Write as a normal number

a)  $5.2 \times 10^{-3}$       b)  $4.17 \times 10^5$



3a

a + 4

5. In a 40% off sale a hat costs £48. What was the price originally?

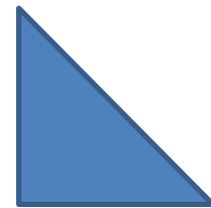
6. What is the value of a if the area of the rectangle is  $96 \text{ cm}^2$ ?

7. A polygon's interior angles sum to 1980. How many sides does it have?

8. Q(1, -2) and R(3, 12) are the ends of a line segment  
Find the equation of the line.

9. Solve  $3x + 2y = 39$   
 $4x - 3y = 18$

9



6

10. Find the missing side length  
leave your answer as a surd (e.g.  $\sqrt{51}$ )

11. There are 5 reds and 8 green counters in a bag. I take one counter, put it back in the bag, and take another. What is the probability the two counters are the same colour?

12. Factorise a)  $a^2 + 7a - 44$       b)  $a^2 - 121$