

Topic Test 1 (20 minutes)

Factors and multiples - Higher

1	$x = 3^2 \times 5$	$y = 2 \times 5^2$			
	Circle the lowest	common multiple of x an	d y.		[1 mark]
	5	30	450	2250	
2 (a)	Write 280 as a product of its prime factors.				
		Answer			
2 (b)	$588 = 2^2 \times 3 \times 7^2$ Work out the highest common factor of 280 and 588				
					[2 marks]
		Answer			

	ifferent prime numbers.			
Work out a set o	of values for a , b and c so that	a + b = 2c		[2 ma
	a =	b =	_ c =	
A number is	an odd multiple of 3	and 750		
Work out the gr	a common factor of 180 and 750 Work out the greatest possible value of the number.			

5	$x = 2^2 \times 5^2 \times 11^4$						
	Circle the square root of x .						
	110	128	1210	732 050			
6	a and b are two numbers between 0 and 100 a is a prime number. b is three times a .						
	Work out the smallest and largest possible values of $a + b$						
		Smallest					
		Largest					

7	Which of these is not a square number?						
	Circle your answer.						
					[1 mark]		
	$2^2 \times 4^3$	2 ² × 8 ³	$2^2 \times 5^4$	$2^2\times 3^2\times 5^2$			
3	A menu has 8 starters, 6 main courses and 6 desserts.						
	Beth wants a starter and a main course. Chen wants a main course and a dessert.						
	How many more poss	ible combinations c	an Beth have than C	Chen?			
		Answer					
)	A wardlands be a seferior divite and a						
	A padlock has a four-digit code. Each digit can be 1, 2, 3, 4, 5 or 6						
	For example,						
	3 6 6 2						
	The fourth digit must be an even number.						
	How many possible co	des are there?					
					[3 marks]		
		Answer					