Summer 1 Week 3 Answers Year6

Monday Roman Numerals

1

	Thousands	Hundreds	Tens	Ones
358		CCC	L	VIII
612		DC	X	II
475		CD	LXX	V
939		CM	XXX	IX
1,563	M	D	LX	III

2a XVIII

b XLVII

c XXXIV

d XCII

e CXV

f DCCLXXVI

g CDLXIX

h CM

i CXXXVIII

j LXXXII

3a 27

b 19

c 63

d 44

e 547

f 285

g 1,325

h 979

4a 1977

b 2008

c 1997

Extension

1. 15 + 15 = 30
2. 23 + 23 = 46
3. 2002 + 2002 = 4004
4. 2005 + 2005 = 4010
5. 171 + 171 = 342
6. 607 + 607 = 1214
7. 86 + 357 = 443
8. 1667 + 2005 = 3672
9. 1667 + 23 = 1690

Tuesday

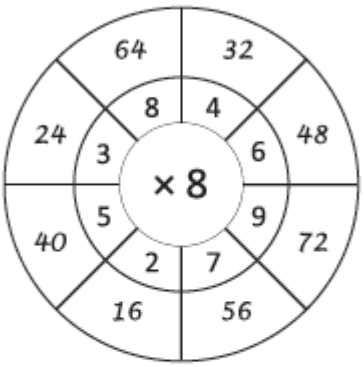
1a 1, 3, 5, 15

b 1, 2, 4, 8, 16

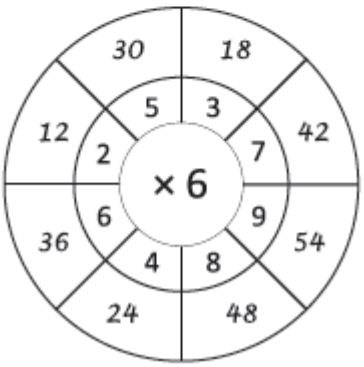
c 1, 2, 11

d 1, 2, 4, 7, 14, 28

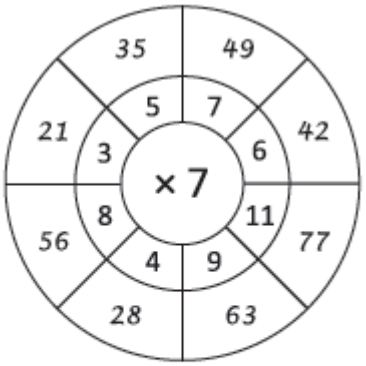
2a



b



c



3 29; 41; 13; 17

4a 1, 2, 4

b 1, 2

c 1, 2, 4, 8

d 1, 2, 3, 4, 6

5a 12, 24, 36

b 14, 28, 42

c 20, 40, 60

d 6, 12, 18

6a 21 or 63

b 180

c 72

Extension

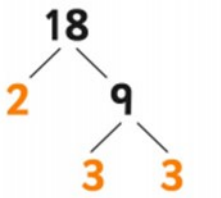
	MULTIPLES OF 9	NOT MULTIPLE OF 9
EVEN	72, 54	56, 84
NOT EVEN	63, 45	49, 75

2. 378

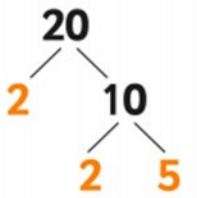
3. 8010

Wednesday

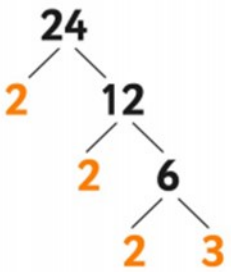
Prime Factors – Answers



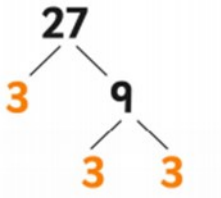
2 x 3 x 3 = 18



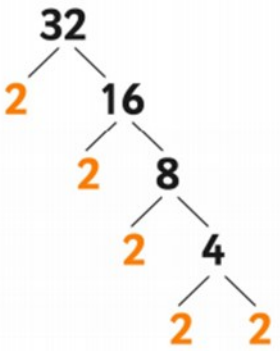
2 x 2 x 5 = 20



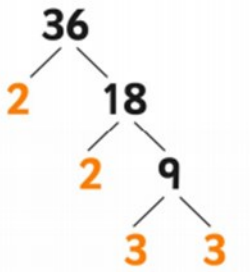
2 x 2 x 2 x 3 = 24



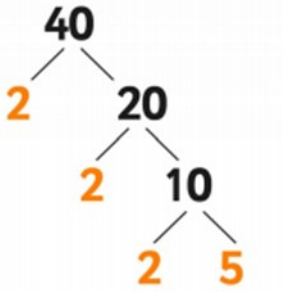
3 x 3 x 3 = 27



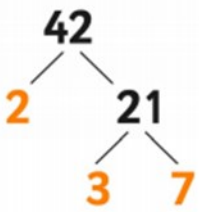
2 x 2 x 2 x 2 x 2 = 32



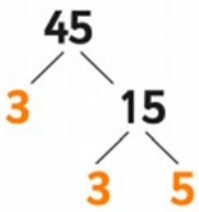
2 x 2 x 3 x 3 = 36



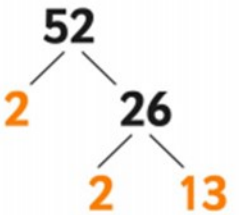
2 x 2 x 2 x 5 = 40



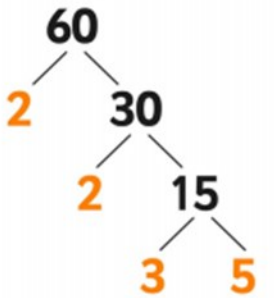
2 x 3 x 7 = 42



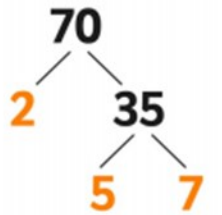
3 x 3 x 5 = 45



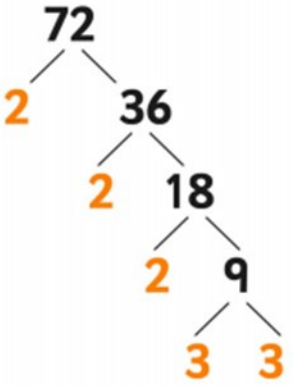
2 x 2 x 13 = 52



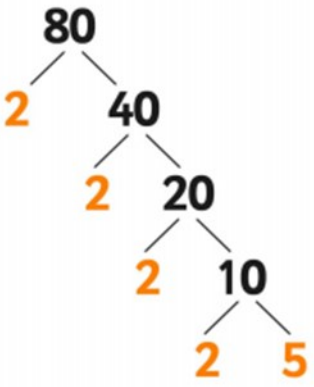
2 x 2 x 3 x 5 = 60



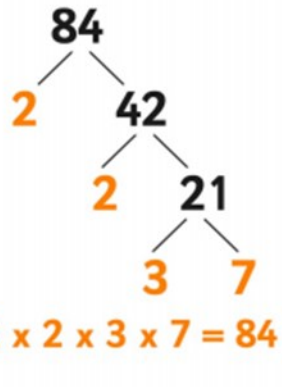
2 x 5 x 7 = 70



2 x 2 x 2 x 3 x 3 = 72



2 x 2 x 2 x 2 x 5 = 80



2 x 2 x 3 x 7 = 84

Extension

18 = 2×3^2

20 = $2^2 \times 5$

24 = $2^3 \times 3$

27 = 3^3

32 = 2^5

36 = $2^2 \times 3^2$

40 = $2^3 \times 5$

45 = $3^2 \times 5$

52 = $2^2 \times 13$

60 = $2^2 \times 3 \times 5$

70 = $2 \times 5 \times 7$

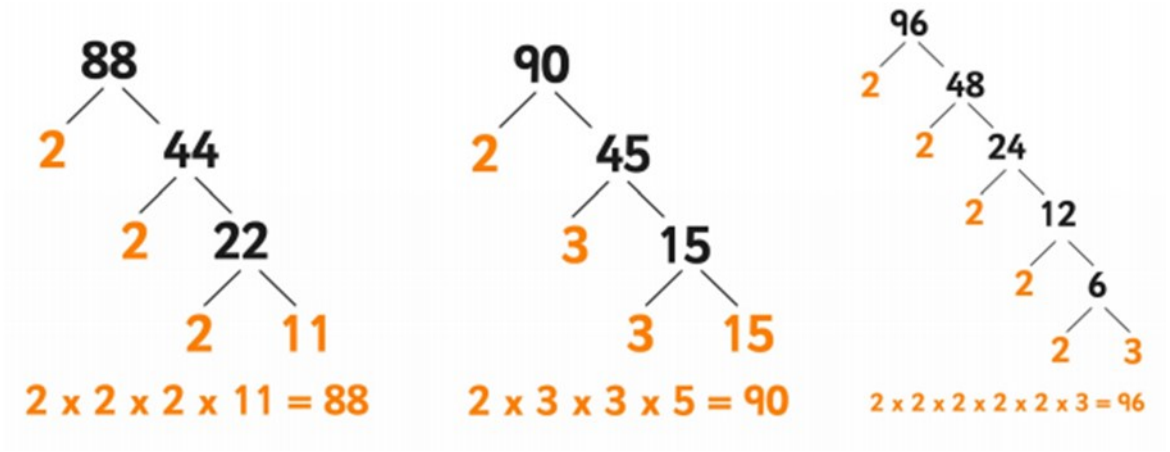
72 = $2^3 \times 3^2$

80 = $2^4 \times 5$

84 = $2^2 \times 3 \times 7$

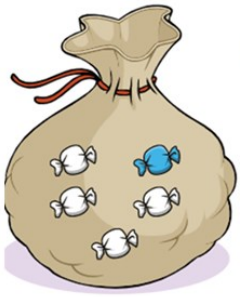
90 = $2 \times 3^2 \times 5$

96 = $2^5 \times 3$



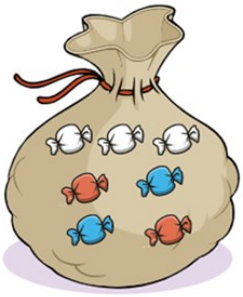
Thursday

What is the probablity of getting each colour in these bags of sweets?



white = $\frac{4}{5}$

blue = $\frac{1}{5}$



white = $\frac{3}{7}$

blue = $\frac{2}{7}$

red = $\frac{2}{7}$

Fill in the probabilities for these spinners:

pink = $\frac{3}{4}$

yellow = $\frac{1}{4}$

pink = $\frac{1}{6}$

yellow = $\frac{1}{3}$

blue = $\frac{1}{2}$

pink = $\frac{3}{8}$

yellow = $\frac{3}{8}$

blue = $\frac{1}{4}$

Give all your answers as fractions in their lowest terms.

Archie picks a ball at random from the balls in the picture.

Work out the probability of picking each colour.

P(pink) = $\frac{4}{9}$

P(yellow) = $\frac{1}{3}$

P(green) = $\frac{2}{9}$

P(blue) = 0

[4]

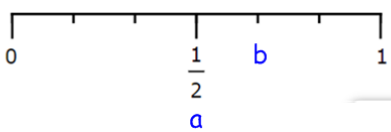
A fair dice is rolled.

The probability that you get:

an even number is $\frac{1}{2}$ a

a number more than 2 is $\frac{2}{3}$ b

Drag the pointers to their correct positions.



[4]

Write probability of outcomes in fractions.

Dan has a bag of seven counters numbered **1 to 7**

Ben has a bag of twenty counters numbered **1 to 20**

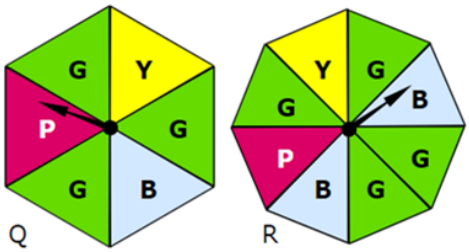
Each chooses a counter from their own bag without looking.

What is the probability getting an even number? Dan 3/7 Ben 1/2

What is the probability getting an odd number? Dan 4/7 Ben 1/2

What is the probability getting a prime number? Dan 4/7 Ben 8/20 or 2/5

What is the probability getting a multiple of 3 numbers? Dan 2/7 Ben 6 /20 or 3/10



Enter 't' for true, or 'f' for false:

Q is less likely to be yellow than R. F

Q is more likely to be green than R. F

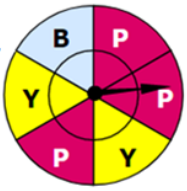
Q is less likely to be blue than R. T

Q is more likely to be pink than R. T

[4]

Give all your answers as fractions in their lowest terms.

Work out the probability of each colour for this spinner.



$P(\text{pink}) = \frac{1}{2}$

$P(\text{blue}) = \frac{1}{6}$

$P(\text{yellow}) = \frac{1}{3}$

In 360 spins, how many yellows would you expect to get? 120 [4]

Extension

NO

An explanation which recognises that the numbers of odd and even cards are not equal.

- ‘Because there are more odds than evens’
- ‘Because there are fewer evens than odds’
- ‘Because Amy scores on more than half of the cards’
- ‘Because there are only three even numbers’
- ‘Because Josh has 3 cards and Amy has 4 cards’
- ‘Because Amy has more chances’.