How much do you remember from last year?

1) Evaluate the following!

a) 4 – 9 =

b) -2 – 6 =

c) 3 + 2 · 4 =

d) $4^0 + 1^{12}$ =

e) $\left(\frac{1}{5}\right)^{-1} =$

f) $\frac{1}{2} + \frac{2}{3} =$

g) $2\frac{1}{4} \cdot \frac{8}{3} =$

2) Simplify!

a) -8x + 5x =

b) (4x) ($2x^2$) =

c) $\frac{6^7}{4^9} =$

3) Solve the following equations!

a) 4x + 8 = 20

b) 3x – 6 = 6x + 5

c) $\frac{x-3}{3} = \frac{5}{2}$

4) Ratio of number of shoes of two sisters is 3:5. If together they have 16 shoes **how many shoes do each of them have?**

answer: _____

5) Write the following numbers in three significant figures!

a) 0.047683 =

b) 87324 =

1) Evaluate the following!

a) 4 – 9 = -5

b) -2 – 6 = -8

c) 3 + 2 · 4 = 3 + 8 = 11

d) $4^0 + 1^{12} = 1 + 1 = 2$

e) $\left(\frac{1}{5}\right)^{-1} = \frac{1}{\frac{1}{5}} = 1 \cdot 5 = 5$

f) $\frac{1}{2} + \frac{2}{3} = \frac{3}{6} + \frac{4}{6} = \frac{7}{6} = 1\frac{1}{6}$

g) $2\frac{1}{4} \cdot \frac{8}{3} = \frac{9}{4} \cdot \frac{8}{3} = \frac{3}{1} \cdot \frac{2}{1} = 6$

2) Simplify!

a) -8x + 5x = -3x

b) $(4x)(2x^2) = 8x^3$

c) $\frac{6^7}{4^9} = \frac{2^7 \cdot 3^7}{2^{18}} = \frac{3^7}{2^{11}}$

3) Solve the following equations!

a) 4x + 8 = 20 | -8

4x = 12 | :4

x = 3

b) 3x – 6 = 6x + 5 | -5

3x – 11 = 6x | -3x

-11 = 3x | :3

$x = 3\frac{2}{3}$

c) $\frac{x-3}{3} = \frac{5}{2}$ | · 3

$x - 3 = \frac{15}{2}$ | +3

x = 10,5

4) Ratio of number of shoes of two sisters is 3:5. If together they have 16 shoes **how many shoes do each of them have?**

x = sister one; y = sister two

x + y = 16

3 : 5 = x : y ⇨ $x = \frac{3}{5}y$

$\frac{3}{5}y + y = 16$ | · 5

3y + 5 y = 80

8y = 80 ⇨ y = 10 ⇨ x = 16 – 10 = 6 The sisters have 6 and 10 shoes.

5) Write the following numbers in three significant figures!

a) 0.047683 = 0.0477

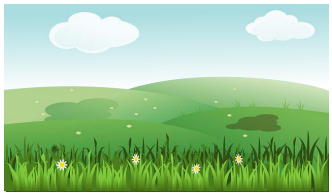
b) 87324 = $8.73 \cdot 10^4$

Quiz 1

1) Circle all of the RATIONAL numbers!

$\sqrt{3}$ 5 $\frac{17}{11}$ $\frac{x}{y}$ 0.3333 $\sqrt{11}$

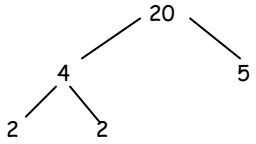
2) Circle PRIME numbers!



2; 3; 4; 7; 11; 16; 19; 23; 25; 27; 29; 31; 33

3) Factor these numbers using only prime numbers!

Example:



48 35 63

4) List multiples of

14 _____ _____ _____ _____ _____ _____

17 _____ _____ _____ _____ _____ _____

4) Solve!

$[(36 : 2) \cdot (\sqrt{9})] + 3 =$

$5\frac{3}{8} + 2\frac{2}{3} =$

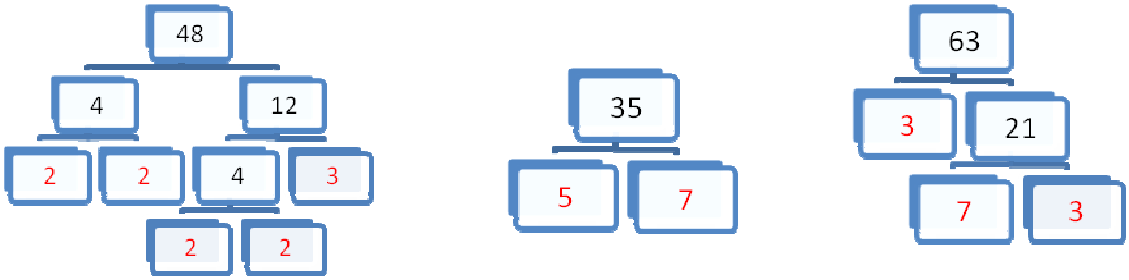
1) Circle all of the RATIONAL numbers!

$\sqrt{3}$ 5 $\frac{17}{11}$ $\frac{x}{y}$ 0.3333 $\sqrt{11}$

2) Circle PRIME numbers!

2; 3; 4; 7; 11; 16; 19; 23; 25; 27; 29; 31; 33

3) Factor these numbers using only prime numbers!



4) List multiples of

14; 28; 42; 56; 70; 84; 98

17; 34; 52; 68; 85; 102; 119

4) Solve!

$[(36 : 2) \cdot (\sqrt{9})] + 3 = [18 \cdot 3] + 3 = 54 + 3 = 57$

$$5\frac{3}{8} + 2\frac{2}{3} = 5 + 2 + \frac{9}{24} + \frac{16}{24} = 7\frac{25}{24} = 8\frac{1}{24}$$

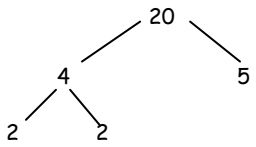
Quiz 2

1) List the seven first prime numbers!

_____

2) Factor these numbers using only prime numbers!

Example:



32 72 99

3) List multiples of

12 ____ ____ ____ ____ ____ ____ ____

16 ____ ____ ____ ____ ____ ____ ____

4) List factors of

a) 60 : 1 ... 60

b) 45 : 1 ...

5) Explain the difference between prime and composite!

_____

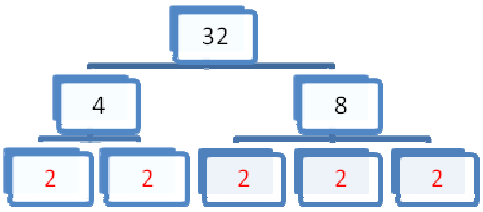
_____

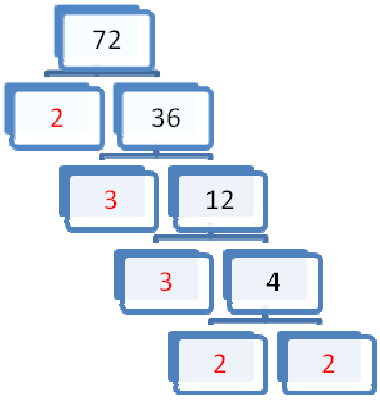
_____

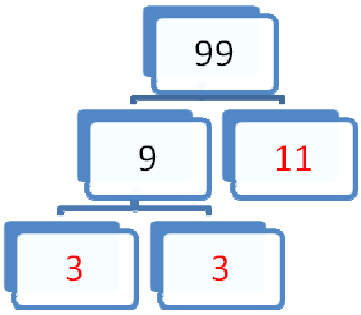
1) List the seven first prime numbers!

2; 3; 5; 7; 11; 13; 17

2) Factor these numbers using only prime numbers!







3) List multiples of

12; 24; 36; 48; 60; 72; 84; 96

16; 32; 48; 64; 80; 96; 112; 128

4) List factors of

a) 60: 1; 2; 3; 4; 5; 6; 10; 12; 15; 20; 30; 60

b) 45: 1; 3; 5; 9; 15; 45

5) Explain the difference between prime and composite!

A prime number is a whole number that only has two factors which are itself and one.
A composite number has factors in addition to one and itself.