

**Factors**

1. Factorize:

$15a + 15b =$	$10x + 2y =$
$36w - 6 =$	$100 - 25x =$

2. Compute using most convenient way:  $12 \cdot 17 + 35 \cdot 13 + 17 \cdot 23 =$



**Prime numbers**

**Prime numbers are building blocks of all composite numbers.**

Eratosthenes (c.276–194 bc) was a Greek scientist who was the first to measure the Earth's circumference using geometry. Eratosthenes produced a reliable, logical method for finding prime numbers:

**The Sieve of Eratosthenes.**

It does so by crossing out composite numbers (not primes). Composite numbers are multiples of each prime, starting with the multiples of 2.

<del>1</del>	2	3	<del>4</del>	5	6	7	8	9	<del>10</del>
11	<del>12</del>	13	<del>14</del>	<del>15</del>	<del>16</del>	17	<del>18</del>	<del>19</del>	20
<del>21</del>	<del>22</del>	<del>23</del>	<del>24</del>	<del>25</del>	<del>26</del>	<del>27</del>	<del>28</del>	<del>29</del>	30
31	<del>32</del>	<del>33</del>	<del>34</del>	<del>35</del>	<del>36</del>	37	<del>38</del>	<del>39</del>	40
41	<del>42</del>	<del>43</del>	<del>44</del>	<del>45</del>	<del>46</del>	<del>47</del>	<del>48</del>	<del>49</del>	50
<del>51</del>	<del>52</del>	<del>53</del>	<del>54</del>	<del>55</del>	<del>56</del>	<del>57</del>	<del>58</del>	<del>59</del>	60
61	<del>62</del>	<del>63</del>	<del>64</del>	<del>65</del>	<del>66</del>	<del>67</del>	<del>68</del>	<del>69</del>	70
71	<del>72</del>	<del>73</del>	<del>74</del>	<del>75</del>	<del>76</del>	<del>77</del>	<del>78</del>	<del>79</del>	80
<del>81</del>	<del>82</del>	<del>83</del>	<del>84</del>	<del>85</del>	<del>86</del>	<del>87</del>	<del>88</del>	<del>89</del>	90
<del>91</del>	<del>92</del>	<del>93</del>	<del>94</del>	<del>95</del>	<del>96</del>	<del>97</del>	<del>98</del>	<del>99</del>	100

3. Find all prime factors of the following numbers:

66

28

128

555

**Greatest Common Factor:**

4. Find the GCF (GCD) of:

42 And 45

81 94 and 125

**Word Problem 1**



For Halloween the Jonson family bought 168 mini chocolate bars and 180 gummy worms. What is the **largest** number of kids between whom the Jonson family can divide both kinds of candy evenly?



## Least Common Multiple

Find the LCM of  
8 and 12

15 and 18 and 21

**Word Problem 2** A grasshopper jumps the 12 cm distance each jump. A little frog jumps the 15 cm distance each jump. They start jumping from the point 0 and jump along a big ruler. What is the closest point (measure) on the ruler they both can land?

