

**Sangam SKM College –Nadi**

**Year 9**

**Mathematics**

**Worksheet 2**

**Solutions:**

<b>1.</b>	<p>(i) Monomial is an expression that has one term.</p> <p>(ii) Binomial is an expression that has two terms.</p> <p>(iii) Trinomial is an expression that has three terms.</p> <p>(iv) Polynomial is an expression that has two or more term</p>		
<b>2.</b>	<p>(i) 3</p> <p>(ii) -4</p> <p>(iii) 1</p>		
<b>3.</b>	<table style="width: 100%; border: none;"> <tbody> <tr> <td style="width: 50%; vertical-align: top;"> <p>(i) <math>3b^2 + b</math> ( common factor )</p> <p><math>3b^2 = 3 \times b \times b</math></p> <p><math>b = b \times 1</math></p> <p><b><math>b(3b + 1)</math></b></p> </td> <td style="width: 50%; vertical-align: top;"> <p>(ii) <math>5a - 5a^2</math></p> <p><math>5a = 5 \times a</math></p> <p><math>5a^2 = 5 \times a \times a</math></p> <p><b><math>5a(1 - a)</math></b></p> </td> </tr> </tbody> </table>	<p>(i) <math>3b^2 + b</math> ( common factor )</p> <p><math>3b^2 = 3 \times b \times b</math></p> <p><math>b = b \times 1</math></p> <p><b><math>b(3b + 1)</math></b></p>	<p>(ii) <math>5a - 5a^2</math></p> <p><math>5a = 5 \times a</math></p> <p><math>5a^2 = 5 \times a \times a</math></p> <p><b><math>5a(1 - a)</math></b></p>
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<b>4.</b>	<p>(i) <math>5(-x - 4) \geq 30</math></p> <p><math>(-x - 4) \geq 30 \div 5</math></p> <p><math>(-x - 4) \geq 6 + 4</math></p> <p><math>-x \leq 10 \div -1</math></p> <p><b><math>x \leq -10</math></b></p> <div style="display: flex; align-items: center; margin-left: 150px;"> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 50px; margin-right: 10px;"></div> <p style="margin-left: 10px;"><i>use inverse operation</i></p> </div> <p><b>When solving in-equations, reverse the inequality sign when dividing or multiplying both sides by a negative number</b></p> <div style="text-align: center; margin: 10px 0;"> </div> <p>(ii) <math>\frac{x}{5} + 2 \leq 17</math></p> <p><math>\frac{x}{5} + 2 \leq 17 - 2</math></p> <p><math>\frac{x}{5} \leq 15</math></p> <p><math>\frac{x}{5} \leq 15 \times 5</math></p> <p><b><math>x \leq 75</math></b></p> <div style="display: flex; align-items: center; margin-left: 150px;"> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 50px; margin-right: 10px;"></div> <p style="margin-left: 10px;"><i>use inverse operation</i></p> </div> <div style="text-align: center; margin: 10px 0;"> </div>		

5.

(i) Write **an equation** to represent their combined ages. Let Luisa's age be  $x$ .

$$\text{Luisa} = x$$

$$\text{Jonasi} = 2x$$

$$x + 2x = 63 \quad \text{or} \quad 3x = 63$$

(ii) How old is Luisa?

$$3x = 63$$

$$x = 63 \div 3$$

$$x = 21 \text{ years}$$

(iii) How old is Jonasi?

$$63 - 21 = 42 \text{ years}$$