



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

GENERAL EDUCATION AND TRAINING CERTIFICATE

NQF LEVEL 1

AET LEVEL 4 SITE-BASED ASSESSMENT

**LEARNING AREA : MATHEMATICS AND
MATHEMATICAL SCIENCES**

CODE : MMSC4

TOOL : WORKSHEET

TIME : 2 HOURS

MARKS : 50

This assessment tool consists of 4 pages.

Name of Centre:

Name of Learner:

QUESTION1

1.1	1.1.1	C. $Q \div 10$ ✓	Correct answer	(1)
	1.1.2	A. $Q - 6$ ✓	Correct answer	(1)
	1.1.3	C. $Q + 13$ ✓	Correct answer	(1)
	1.1.4	B. $Q \times 8$ ✓	Correct answer	(1)
	1.1.5	A. $Q - 13$ ✓	Correct answer	(1)

1.2	1.2.1	47; 53; 60; 67; 74; <u>81</u> ✓✓	Correct pattern Correct sixth value	(2)
	1.2.2	3; 6; 9; 12; <u>15</u> ✓✓	Correct pattern Correct fifth value	(2)
	1.2.3	23; 21; 19; 17; 15; <u>13</u> ✓✓	Correct pattern Correct sixth value	(2)
	1.2.4	3; 6; 12; <u>24</u> ✓✓	Correct pattern Correct fourth value	(2)

1.3	1.3.1	C. 82 , 91 ✓	Correct values	(1)
	1.3.2	B. 53 , 45 ✓	Correct values	(1)
	1.3.3	C. 69 , 78 ✓	Correct values	(1)

1.4	1.4.1	Rule= Subtract 9 OR Difference of 9 between the terms ✓	Correct rule	(1)
	1.4.2	Rule= Divide by 5 ✓	Correct rule	(1)
	1.4.3	Rule= Add 6 OR Increase by 6 ✓	Correct rule	(1)

1.5	1.5.1	1	2	3	4	5	6	7	8	9	10
		11	12	13	14	15	16	17	18	19	20
		21	22	23	24	25	26	27	28	29	30
		31	32	33	34	35	36	37	38	39	40
		41	42	43	44	45	46	47	48	49	50
		51	52	53	54	55	56	57	58	59	60
		61	62	63	64	65	66	67	68	69	70
		71	72	73	74	75	76	77	78	79	80
		81	82	83	84	85	86	87	88	89	90
		91	92	93	94	95	96	97	98	99	100
		✓	For 4 coloured blockscorrect								
✓	For ALL 7 coloured blockscorrect										
											(2)

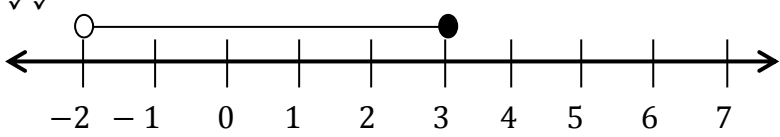
	1.5.2	<table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr><tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr><tr><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td></tr><tr><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td><td>48</td><td>49</td><td>50</td></tr><tr><td>51</td><td>52</td><td>53</td><td>54</td><td>55</td><td>56</td><td>57</td><td>58</td><td>59</td><td>60</td></tr><tr><td>61</td><td>62</td><td>63</td><td>64</td><td>65</td><td>66</td><td>67</td><td>68</td><td>69</td><td>70</td></tr><tr><td>71</td><td>72</td><td>73</td><td>74</td><td>75</td><td>76</td><td>77</td><td>78</td><td>79</td><td>80</td></tr><tr><td>81</td><td>82</td><td>83</td><td>84</td><td>85</td><td>86</td><td>87</td><td>88</td><td>89</td><td>90</td></tr><tr><td>91</td><td>92</td><td>93</td><td>94</td><td>95</td><td>96</td><td>97</td><td>89</td><td>99</td><td>100</td></tr></table> <p>✓ For correctly coloured block of 26 ✓ For correctly coloured block of 50 ✓ For correctly coloured block of 82</p>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	89	99	100	(3)
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	1.5.3	<table><tr><td>$2=1^2+1; 5=2^2+1; 10=3^2+1; 17=4^2+1$ $T_n = n^2 + 1$</td><td>Correct pattern $n^2 + 1$</td></tr></table>	$2=1^2+1; 5=2^2+1; 10=3^2+1; 17=4^2+1$ $T_n = n^2 + 1$	Correct pattern $n^2 + 1$	(3)																																																																																																		
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	1.5.4	$T_n = n^2 + 1$ $290 = n^2 + 1$ ✓ $n^2 = 289$ ✓ $\sqrt{n^2} = \sqrt{289}$ $n = 17$ ✓	Correct substitution Correct simplification Correct answer	(3) [30]
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QUESTION 2

2.1	2.1.1	$5 + x = 7$ <u>2✓</u>	Correct value	(1)
	2.1.2	$x + 3 = x + 2$ <u>False✓</u>	Correct answer	(1)
	2.1.3	$2x + 6 = 2(x + 3)$ <u>Identity✓</u>	Correct answer	(1)
	2.1.4	$x \times x = x + x$ <u>0; 2✓✓</u>	Correct values of 0 and 2	(2)
	2.1.5	$(x + 1)^2 = 9$ <u>-4; 2✓✓</u>	Correct values of -4 and 2	(2)
2.2	2.2.1	$5x - 3 + 2x - 7 = 4x - 1$ $5x + 2x - 4x = -1 + 3 + 7$ [Subtract 4x; add 3 and 7 on both sides]✓ $3x = 9$ [Add like terms]✓ $\frac{3x}{3} = \frac{9}{3}$ $x = 3$ ✓	Correct transposing Collecting like terms Correct answer	(3)
	2.2.2	$x(3x - 1) - (3 - x) = 3x^2 - 5x + 2$ $3x^2 - x - 3 + x = 3x^2 - 5x + 2$ ✓ $3x^2 - 3x^2 - x + 5x + x = +2 + 3$ ✓ $5x = 5$ ✓ $\frac{5x}{5} = \frac{5}{5}$ $x = 1$ ✓	Correct brackets Correct transposing Correct simplification Correct answer	(4)
2.3	<u>Answer: $3h + 15 = 36$✓✓</u>		Correct $3h+15$ Correct 36	(2)

2.4	2.4.1	<u>B. -10✓</u>	Correct ALL values	(1)
	2.4.2	<u>D. 63✓</u>	Correct ALL values	(1)

2.5	Plot $-2 < x \leq 3$, on the number line. ✓✓ 		Correct ring over 2 Correct solid dot over 3	(2) [20]
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TOTAL: 50