UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

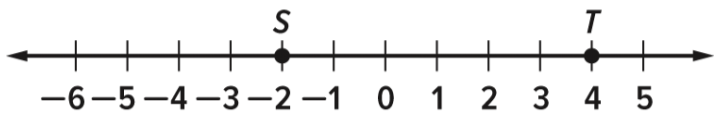
Grade 7 Chapter 1 Test – Operations with Integers

Student Name		Class		Date	

MULTIPLE CHOICE QUESTIONS:

1	What is 5 – 16?	
	A	–21
	B	–11
	C	11
	D	21

2	What is the value of | –17 |?	
	A	–17
	B	0
	C	1
	D	17

3	What integer represents *S* on the number line? 	
	A	–4
	B	–2
	C	2
	D	4

4	What is the value of the expression –9 + (–7)?	
	A	–16
	B	–2
	C	2
	D	16

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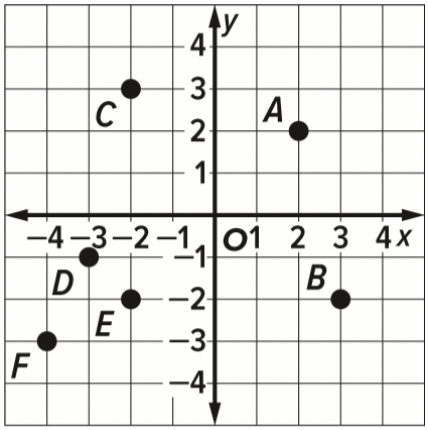
5	What is the value of the expression –35 + 7 ?	
	A	–42
	B	–28
	C	28
	D	42

6	What is the value of the expression 6(–7) ?	
	A	–42
	B	–1
	C	13
	D	42

7	What is the value of the expression (– 4)(–4) ?	
	A	–16
	B	–8
	C	1
	D	16

8	Which point is located at (–4, –3)? 	
	A	C
	B	D
	C	E
	D	F

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9	Which point(s) on the coordinate plane in question 8 are located in Quadrant II?	
	A	C
	B	A
	C	B
	D	D, E, F

10	Evaluate the expression: $(-8c)(-1)$ if $c = 8$	
	A	–65
	B	–64
	C	64
	D	88

EXTENDED RESPONSE QUESTIONS:

11	What value of f makes $-35 - (-15) = f$ a true sentence?	marks:	/ 2

12	Hamdan saved AED 3000 to spend on a vacation. If he spends AED 350 a week for three weeks, how much money does he have left?	marks:	/ 3

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13	What is the value of $uv - \|w\|$ if $u = 12$, if $v = -3$ and $w = -4$?	marks:	/ 3

14	The temperatures below were recorded in Abu Dhabi, Manchester, Barcelona and Oslo on the same day. What is the mean temperature? 42°C, 14 °C, 23 °C and –11 °C	marks:	/ 3

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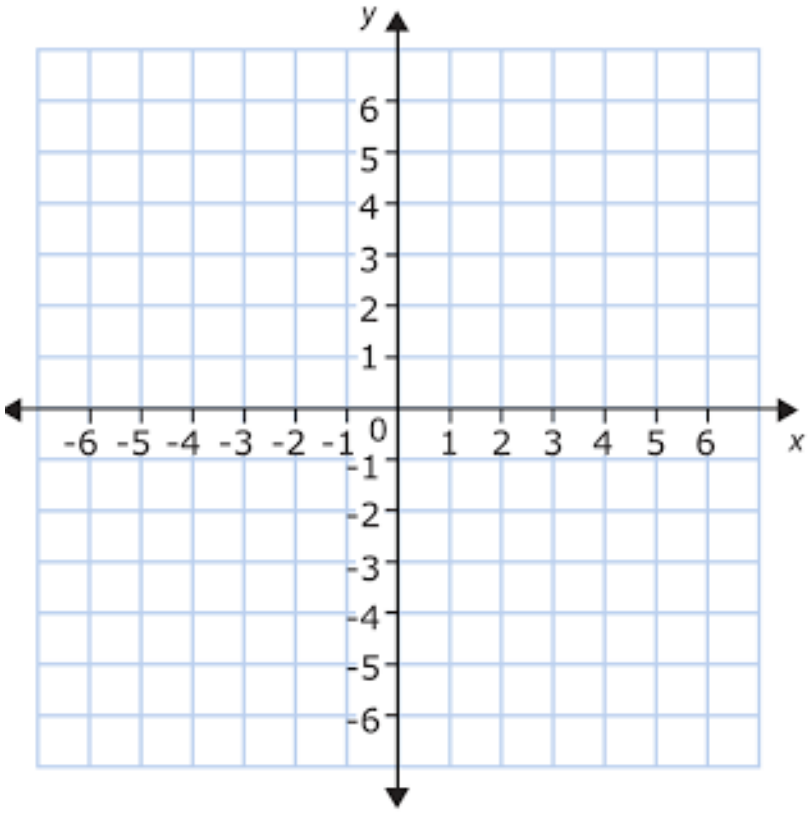
15

Complete the table of values for the equation $y = 2x + 1$. Then plot the four sets of the ordered integer pairs on the coordinate plane provided.

x	y	(x, y)
–3		
–1		
0		
2		



marks: / 4

MULTIPLE CHOICE SECTION:	/10
EXTENDED RESPONSE SECTION:	/15
TOTAL MARKS:	/25
PERCENT:	%

Grade	7	Lesson(s)	1-1, 1-2, 1-3, 1-4, 1-5, 1-6

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Answer Key

MULTIPLE CHOICE QUESTIONS:

Q1	B
Q2	D
Q3	B
Q4	A
Q5	B
Q6	A
Q7	D
Q8	D
Q9	A
Q10	C

EXTENDED RESPONSE QUESTIONS:

Q11

Ans: –35 + 15 = –20

1. Subtract negative integer. 2. Calculate –35 – (–15) = –20	• –35 + 15 (1 mark) • –20 (1 mark)

- A common mistake is –35 – 15, which should not be awarded the 1st mark.
- This common mistake will lead to an answer of –50.
- If student answers –35 – 15 = –50, award 1 mark for this.
- Award full marks for the correct answer without working.

Q12

Ans: 3000 – (350 x 3) = 3000 – 1050 = 1950 AED

1. Multiply integers. 2. Subtract integers. 3. Answer	• 350 x 3 (1 mark) • 3000 – 1050 (1 mark) • AED 1950 (1 mark)

- A wrong answer for the total amount spent can be carried forward to award 2/3 marks.
- Currency Units (AED) are needed for the 3rd mark.
- Award full marks for correct answer without working.

Q13

Ans: –36 – 4 = –40

1. Multiply integers 2. Absolute value 3. Simplify algebraic expressions.	• uv = 12 (–3) = –36 (1 mark) • $\|w\| = 4$ (1 mark) • –40 (1 mark)

- For the 1st mark, if the answer for uv = 36, the mark should **not** be awarded.
- For the 2nd mark, if the absolute value is –4, the mark should **not** be awarded.
- If the absolute value of –4 leads to an answer of –36 + 4 = –32, the 3rd mark should be awarded.
- If the answer to 36 + 4 = 40, the 3rd mark should **not** be awarded.

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Q14

Ans: $(42 + 14 + 23 - 11) \div 4 = 68 \div 4 = 17\ ^{o}C$

1. Add/subtract more than one integer.	• $(42 + 14 + 23 - 11)$ (1 mark)
2. Divide integers.	• $68 \div 4$ (1 mark)
3. Find the mean of the data set.	• $17\ ^{o}C$ (1 mark)

- If the answer for the 1st mark is 90, the mark should **not** be awarded for the 1st mark.
- If the pupil does not divide by 4, the mark should **not** be awarded for the 2nd mark.
- If the pupil does not write units for the 3rd mark, the mark should **not** be awarded.
- Award full marks for the correct answer with units but without working.
- A possible answer is $90 \div 4 = 22.5\ ^{o}C$. Award 2 marks for this. (the 2nd mark for dividing by 4 and the 3rd mark for the answer in ^{o}C)

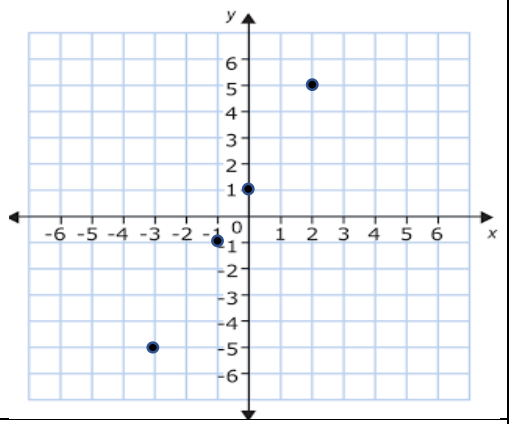
Q15

Ans: Check the table and the graph.

1. Graph algebraic relationships.
   - Any 2 rows in table correct (1 mark)
2. Graph algebraic relationships.
   - All 4 rows in table correct (1 mark)

x	y	(x, y)
–3	–5	(–3, –5)
–1	–1	(–1, –1)
0	1	(0, 1)
2	5	(2, 5)

3. Plot points on a coordinate plane.
   - Any 2 points plotted on the coordinate plane (1 mark)
4. Plot points on a coordinate plane.
   - All 4 points plotted on the coordinate plane (1 mark)



- For the 1st and 2nd marks, any possible combination of x and y is correct.
- For the 3rd and 4th marks, award only if any 2 or all 4 coordinates are plotted correctly.