Grade 6 Mathematics End-of-Term Exam
Review 1

Grade	6		

Student Name		Class		Date	

Calculator Allowed

1	Which statement is true about the two dot plots below		
	A	Both have the same mode.	
	B	Both have the same mean.	
	C	Both have the same median.	
	D	Both have the same range.	

2	In Mr. Harun's class, the number of books students read in one week is shown in dot plot below.	
	Books read in a Week	
	Which statement is true about the dot plot above?	
	A	50% of the students read more than 6 books.
	B	50% of the students read less than 4 books.
	C	50% of the students read more than 9 books.
	D	50% of the students did read books.

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Review 1

3	The end-of-year exams marks of a G6 class are shown in the histogram below.
	End-of-Year Exam Marks Which marks interval has the same number of students as 96%-100%?
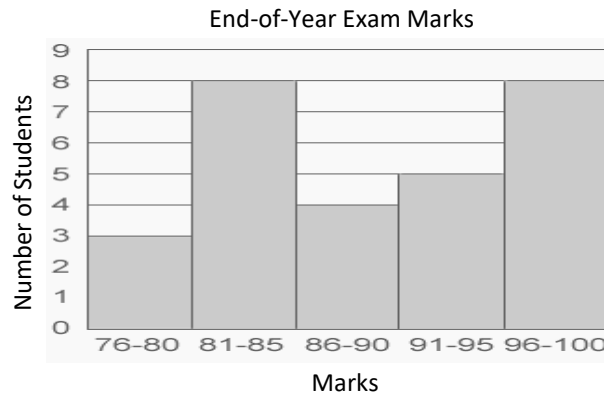
A	76%-80%
B	81%-85%
C	86%-90%
D	91%-95%

4	The ages of children who visit two libraries are shown in the box plot below.
	Ages of Students who Visit the Library Which statement is true about the box plot above?
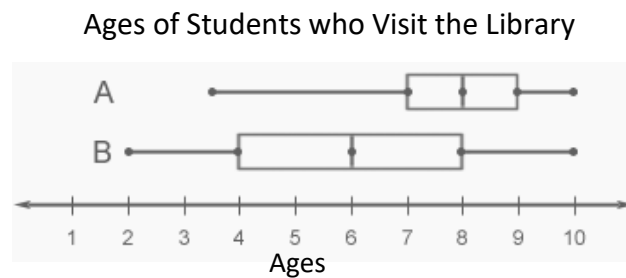
A	The maximum age is less for library A than library B.
B	The maximum age is greater for library A than library B.
C	The maximum age is the same for library A and library B.
D	Library A and library B don't have maximum ages.

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Review 1

5	The box plot shows the marks of students in two tests.
	What is the minimum mark in test A?
	A 20
	B 24
	C 30
	D 36

6	Which measure of **center** is appropriate to describe the data set?
	A mean
	B cluster
	C median
	D range

7	The marks of students in G6-A and G6-B are shown in the data sets below.
	G6-A: $\{10, 7, 12, 6, 14, 25, 10, 5, 1\}$
	G6-B: $\{10, 6, 11, 6, 12, 10, 6, 4, 7\}$
	Which of the following is true about the spread (range) of the data sets above?
	A The marks for G6-A are more spread out than G6-B.
	B The marks for G6-B are more spread out than G6-A.
	C The marks for G6-A and G6-B are equally spread out.
	D Both G6-A and G6-B don't have spread in their marks.

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8	What is the median of data displayed below?
	Amount of Sleep
	Time (hours)
A	7.5 hours
B	8 hours
C	8.5 hours
D	9 hours

9	G6 students collected data about the smartphones they are using. The data is shown in the histogram below.
	Length of Smartphones (cm) 3-4 in 5-6 in 7-8 in 9-10 in
	Which statistical question did they use for the survey?
A	How many smartphones are used by G6 students?
B	What are the lengths of the smartphones used by G6 students?
C	What are the lengths of the computers used by G6 students?
D	What is the length of the smartphone used Jassim?

10	The table shows the time 5 students spent to complete a test.

Name	Rasheed	Khalid	Osama	Mohammad	Ahmed
Time (min.)	8.5	10.2	3.25	5.75	8

	Find the mean time for the data set.
A	3.25
B	7.14
C	8
D	10.2

Total Marks	/10

Grade 6 Mathematics End-of-Term Exam Review 1

Student Self-Reflection

What do you think you can <u>and</u> cannot do?	*One thing I can do is…* *One thing I cannot do is…*
What will your focus be for improvement?	*I need to improve on…*
How will you make the improvement(s)?	*I will make this improvement by…*

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمـارات العربيـة المتحـدة
وزارة التـربيــة والـتعلـيــم

Grade 6 Mathematics End-of-Term Exam Review 1

Answer Key

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

Grade 6 Mathematics End-of-Term Exam
Review 3

Grade	6	Student Learning Outcome(s)	6.g.1, 6.g.3, 6.g.4, 6.g.6, 6.g.8

Student Name		Class		Date	

Calculator Allowed

1	Find the area of the figure below. The figure is not drawn to scale.
A	51 cm^2
B	54 cm^2
C	57 cm^2
D	72 cm^2

2	Find the area of the figure below. The figure is not drawn to scale.
A	32 m^2
B	22 m^2
C	26 m^2
D	16 m^2

Grade 6 Mathematics End-of-Term Exam
Review 3

3	Find the area of the triangle below. The figure is not drawn to scale.

8 m

5 m

A	13 m²
B	20 m²
C	40.5 m²
D	80 m²

4	Three coordinates of a rectangle are shown on the graph below.

(-5,3)   (3,3)

(-5,-3)

What are the coordinates of the fourth vertex?

A	(-3, -3)
B	(-3, 3)
C	(-3, 5)
D	(3, -3)

Grade 6 Mathematics End-of-Term Exam Review 3

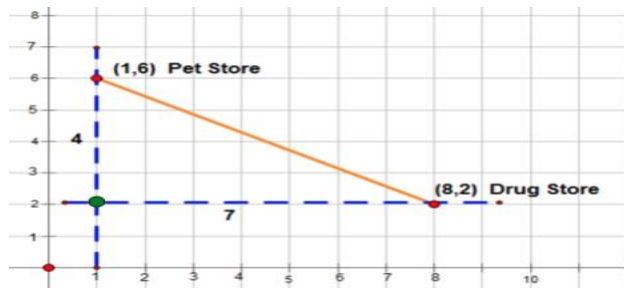| 5	On a map, **Village P** is at (-3, 4). **Village Q** is at (6, 4), and **Village R** is at (6, -3).
	What is the distance from the Village Q to Village R in km? Each 1 unit distant is 1 km.
	A 7 km
	B 8 km
	C 9 km
	D 16 km
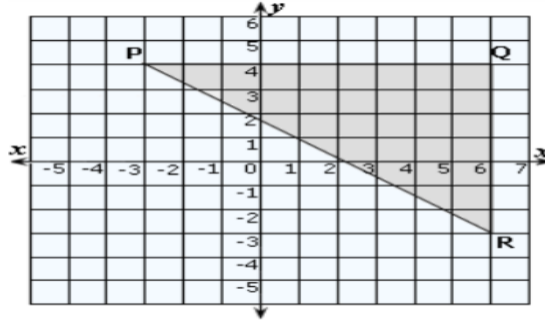
6	On the graph below, the grocery store is located at the third coordinate.
	What are the coordinates of the grocery store?
	A (0, 2)
	B (1, 2)
	C (4, 7)
	D (7, 4)

Grade 6 Mathematics End-of-Term Exam
Review 3

|		
7	A rectangular prism has length 4 m, width $\frac{1}{4}$ m, and height 3 m. Find the volume of the rectangular prism.	
	A	1.5 m³
	B	3 m³
	C	7.25 m³
	D	48 m³

8	What is the volume of the rectangular prism below? The figure is not drawn to scale.	

$2\ cm$

$6\ cm$

$1\frac{1}{2}\ cm$

	A	8 cm³
	B	9 cm³
	C	18 cm³
	D	36 cm³

9	The net of rectangular prism is shown below.	

4 cm

2 cm

6 cm

Find the surface area. The figure is not drawn to scale.

	A	44 cm²
	B	48 cm²
	C	64 cm²
	D	88 cm²

Grade 6 Mathematics End-of-Term Exam Review 3

10	The net of triangular pyramid is shown below.

6 cm   12 cm   6 cm
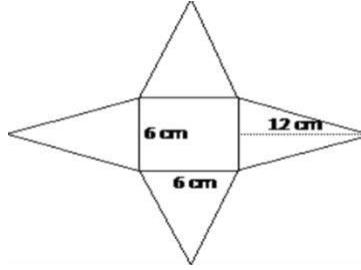
Find the surface area. The figure is not drawn to scale.

A	180 cm^2
B	144 cm^2
C	108 cm^2
D	24 cm^2

Total Marks	/10

Grade 6 Mathematics End-of-Term Exam Review 3

Answer Key

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

Content and Skills Assessment 1

Grade	6		

Student Name		Class		Date	

CALCULATOR _NOT_ ALLOWED

1	Choose the three-dimensional figure whose net is shown on the left.

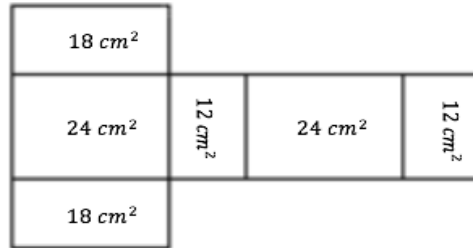| 2	The figure below contains cubes each with side length of $\frac{1}{2}$ cm. Calculate the volume of the entire figure?

Content and Skills Assessment 1

3

The figure below is the net of a rectangular prism. The area of each face is shown below. Calculate the dimensions (length, width, and height) of the rectangular prism.
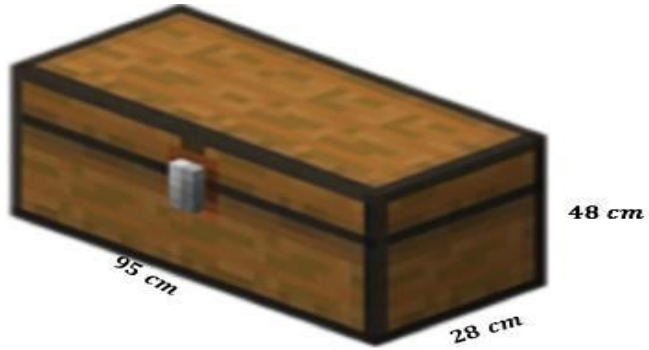
$18\ cm^2$				
$24\ cm^2$	$12\ cm^2$	$24\ cm^2$	$12\ cm^2$	
$18\ cm^2$				

4

The water tank below is initially filled with water to the height of $6\frac{1}{2}m$. How much more water will the tank hold before it over flows?

$8\ m$

$6\frac{1}{2}\ m$

$10\ m$

$12\frac{1}{4}\ m$
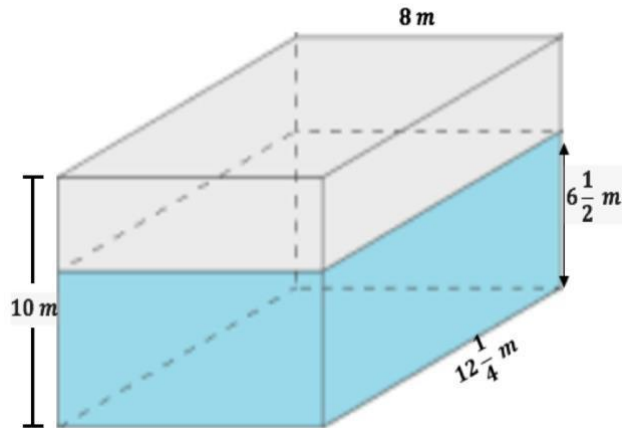
Content and Skills Assessment 1

5	Jassim is painting the toy chest below, including the bottom. What is the surface area that he will paint? 48 cm 95 cm 28 cm
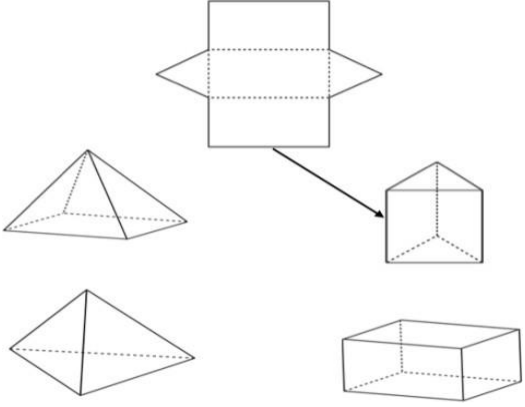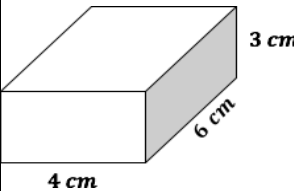
Total Marks	/25
Percentage	/100%

Content and Skills Assessment 1

Answer Key

Q1	correct match [1mark]	
		/1
Q2	$l = 2\frac{1}{2}\ cm$ [1mark] $w = 2\frac{1}{2}\ cm$ [1 mark] $h = 2\frac{1}{2}\ cm$ [1 mark] All three are multiplied correctly. [1 mark] $\frac{125}{8}\ cm^3$ [1 mark] cm^3 in final answer [1 mark]	5 cubes are stacked along the length, so $l = 2\frac{1}{2}\ cm$ 5 cubes are stacked along the width, so $w = 2\frac{1}{2}\ cm$ 5 cubes are stacked along the height, so $h = 2\frac{1}{2}\ cm$ $v = 2\frac{1}{2}\ cm\ \times\ 2\frac{1}{2}\ cm\ \times\ 2\frac{1}{2}\ cm$ $= \frac{125}{8}\ cm^3$ **OR** $15\frac{5}{8}\ cm^3$ showing cm^3 (unit measure for volume) /6

Q3	$6\ cm \times 3\ cm$ [1 mark]
	
	$6\ cm\ \times\ 4\ cm$ [1 mark]
	
	$3\ cm\ \times\ 4\ cm$ [1 mark]
	
	$l = 6\ cm, w = 4\ cm,$
	$h = 3\ cm$ [2 marks]
	
	cm in final answer [1 mark]
		Note: From then pattern of the net, $18\ cm^2$ and $24\ cm^2$ should have <u>one</u> dimension in common. Likewise, $24\ cm^2$ and $12\ cm^2$ should have <u>one</u> dimension in common.
		
		Area of rectangle $18\ cm^2$
		     $l = 6\ cm$ $w = 3\ cm$
		     $18\ cm^2 = 6\ cm\ \times 3\ cm$
		Area of rectangle $24\ cm^2$
		     $l = 6\ cm$ $w = 4\ cm$
		     $24\ cm^2 = 6\ cm\ \times 4\ cm$
		Area of rectangle $12\ cm^2$
		     $l = 4\ cm$ $w = 3\ cm$
		     $12\ cm^2 = 3\ cm\ \times 4\ cm$
		
		    OR $l = 6\ cm, w = 4\ cm, h = 3\ cm$
		
		/6

Content and Skills Assessment 1

Q4	$10\ m - 6\frac{1}{2}m$ [1 mark: finding difference of heights] $12\frac{1}{4}m \times 8\ m \times 3\frac{1}{2}m$ [2 marks: multiplication and using the difference] 49×7 [1 mark: correct simplification] $343\ m^3$ [1 mark] m^3 in final answer [1 mark]	Difference in height: $10\ m - 6\frac{1}{2}m = 3\frac{1}{2}m$ $v = 12\frac{1}{4}m \times 8\ m \times 3\frac{1}{2}m$ $\ \ = 49 \times 7$ additional amount of water before overflow: $343\ m^3$ **OR** Volume when height is $6\frac{1}{2}m$: $v = 12\frac{1}{4}\ m \times 8\ m \times 6\frac{1}{2}m$ $\ \ = 49 \times 13\ m^3$ $\ \ = 637\ m^3$ Volume when height is $10\ m$: $v = 12\frac{1}{4}\ m \times 10\ m \times 8\ m$ $\ \ = 49 \times 10 \times 2$ $\ \ = 980\ m^3$ Additional amount of water before overflow: $980\ m^3 - 637\ m^3 = 343\ m^3$ /6
Q5	$2(95 \times 28)$ [1 mark: multiplication using correct factors] $2(95 \times 48)$ [1 mark: multiplication using correct factors] $2(48 \times 28)$ [1 mark: multiplication using correct factors] $5,320 + 9,120 + 2,688$ [1 mak] $17,128\ cm^2$ [1mark] cm^2 in final answer [1 mark]	Surface Area of the rectangular prism $2(95 \times 28)\ cm^2 + 2(95 \times 48)\ cm^2 + 2(48 \times 28)\ cm^2 =$ $5,320 + 9,120 + 2,688 = 17,128\ cm^2$ /6

Content and Skills Assessment 2

Grade	6		

Student Name		Class		Date	

Selected Response: CALCULATOR NOT ALLOWED

1	The students in G6-A were surveyed on Thursday. The data is displayed in the dot plot below.
	Books Carried to School
	What was the statistical question for the survey?

A	How many books did G6-A students read on Thursday?
B	How many books were in the school library on Thursday?
C	How many books did Jassim in G6-A carry to school on Thursday?
D	How many books did G6-A students carry to school on Thursday?

2	The hours spent by G6-B students practicing the piano last week is shown in the histogram below.
	Piano Practice
	Which time interval was most practiced by the students?

A	3-5 hours
B	6-8 hours
C	9-11 hours
D	12-14 hours

Content and Skills Assessment 2

3	The dot plot shows the number of books borrowed by the students in Mr. Hussain's grade 6 class.
	Books Borrowed
	How many students borrowed more than 4 books?
	A 5
	B 6
	C 8
	D 9

4	The box plot below shows the costs of calculators found in different stores in Dubai.
	Prices of calculators (AED)
	8 9 10 11 12 13 14 15
	According to the box plot above, which of the following statements is false?
	A The median is AED 9.
	B The minimum price is AED 8.
	C The maximum price is 15 AED.
	D The upper quartile is 14 AED.

5	When a data set has an outlier, it is advisable to use the mean to describe the center.
	A True
	B False

Content and Skills Assessment 2

6	Which word correctly describes the data shown on the number 18 in the dot plot below? **Computer Games**
A	gap
B	cluster
C	peak
D	outlier

7	The number of food orders from a restaurant are shown in the two displays below. Which display allows you to tell the <u>mode</u> of the data?
A	**Food Orders** 19 20 21 22 23 24 25 26 27 28 29 30 31 32
B	**Food Orders** 20 21 22 23 24 25 26 27 28 29 30 31

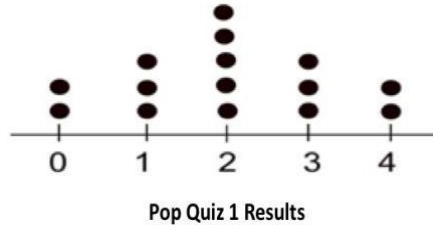| 8	The number of goals scored by the boys' soccer team in 6 games is shown in dot plot below. **Goals Scored by Boys Team**
	What is the mean number of goals scored?
A	3
B	7
C	18
D	54

Content and Skills Assessment 2

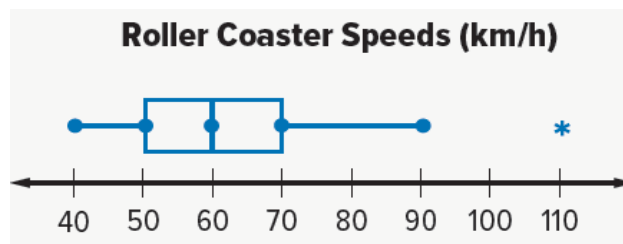| 9	The dot plot below shows the science pop quiz results of a 7th grade class at a school. **Pop Quiz 1 Results** Which of the following is true about the dot plot above?
	A mean < median < mode
	B mean > median > mode
	C mean = median = mode
	D mean < median > mode

10	Which of the following is true about the box plot below? **Roller Coaster Speeds (km/h)**
	A The outlier is 110.
	B The mode is 100.
	C The range is 60.
	D The median is 70.

Content and Skills Assessment 2

Constructed Response: CALCULATOR ALLOWED

11	The grades of students in G6-A and G6-B are shown in the data sets below. G6-A: $\{10, 7, 12, 6, 14, 25, 10, 5, 1\}$ G6-B: $\{10, 6, 11, 6, 12, 15, 6, 4, 2\}$ Compare the means of the two data sets above.

12	The savings of 10 friends are shown in the data set below. All amounts are in AED. $\{10, 10, 20, 20, 30, 30, 30, 40, 50, 60\}$ Complete the table below using the data above.

minimum savings	
median	
range	
mode	

Content and Skills Assessment 2

Matching Response: CALCULATOR ALLOWED

13 | In sets A, B, C, D, and E, the arrows show specific data values. Match the words on the right to the values indicated by the arrows.

4.5
A: 1, 1, 2, 2, 3, 3, 4, 5, 6

Median

1.5
B: 1, 1, 2, 2, 3, 3, 4, 5, 6

Lower Quartile

C: 1, 1, 2, 2, 3, 3, 4, 5, 6

Upper Quartile

D: 1, 1, 2, 2, 3, 3, 4, 5, 6

Maximum

E: 1, 1, 2, 2, 3, 3, 4, 5, 6

Minimum

Selected Response	/10
Constructed Response	/15
Total Marks	/25
Percentage	/100%

Content and Skills Assessment 2

Answer Key

Selected Response

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

Constructed Response

Q11		
	Showing addition (all data points) and division by 9 [**1 mark**] Mean value of 10 [**1 mark** correct answer only]	$\text{Mean} = \frac{10+7+12+6+14+25+10+5+1}{9}$ $= \frac{90}{9} = 10$ G6-B: $\{10, 6, 11, 6, 12, 15, 6, 4, 2\}$
	Showing addition (all data points) and division by 9 [**1 mark**] Mean value of 8 [**1 mark** correct answer only]	$\text{Mean} = \frac{10+6+11+6+12+15+6+4+2}{9}$ $= \frac{72}{9} = 8$ The average (mean) grade in G6-A is **greater than** the average grade in G6-B.
	Comparing the two averages: e.g. G6-A has higher mean than G6-B [**2 marks**]	Or G6-A has higher mean/average than G6-B. /6

Q12	**1 mark** each, (correct answer only).		
		Minimum savings	AED 10
		Median	$\frac{30+30}{2} = \frac{60}{2} = AED\ 30$
		Range	$60 - 10 = AED\ 50$
		Mode	AED 30
			/4

Content and Skills Assessment 2

Matching Response:

Q13	**1 mark** each, (correct matching only).	A: 1, 1, 2, 2, 3, 3, 4, 4.5, 5, 6 → Median
		B: 1, 1, 1.5, 2, 2, 3, 3, 4, 5, 6 → Lower Quartile
		C: 1, 1, 2, 2, 3, 3, 4, 5, 6 → Upper Quartile
		D: 1, 1, 2, 2, 3, 3, 4, 5, 6 → Maximum
		E: 1, 1, 2, 2, 3, 3, 4, 5, 6 → Minimum
		/5

Content and Skills Assessment 2