Mathematics Assessment Program CCR-B1

College and Career Readiness Mathematics

Scoring Rubric (Draft)

Sho	Short Tasks		
Q	Answer		Points
1	% 7,√7		1
2	$x^4 - 4x^3 - 23x^2 + 19x - 35$		1
3	• Graph C		1
	• Graphs A and B		
4	$\sqrt{3}$		1
5	Medians are:		1
	A 28		
	B 36		
	C 32		
	Aaron and Claude are equally close to 30.		
	So they are equally good best estimators.		
		Total	5

	Yogurt	Rubric	
		Points	Section points
1.	Gives correct answer: 15¢	1	2
	Shows calculation such as: $\underline{20} \times 75$ 100	1	
2.	Gives correct answer: 50 gallons	1	2
	Shows calculation such as: $1600 \times \frac{1}{4} \times \frac{1}{8}$	1	
3.	Gives correct answer: 2500 gallons	2	
	Shows calculation such as: 50 x 10 x 5	1 ft	3
4.	Gives correct answer: 40%	2	
	Partial credit Gives answer :140%	(1)	
	Shows calculation such as: $\frac{2}{5} \times 100$	1 ft	3
	Total Points		10

Hopewell Geometry		Rubric	
		Points	Section points
1.	Gives correct answer: 7.1 (accept 7 or $5\sqrt{2}$)	1	
	Shows correct work such as: $\sqrt{(1^2 + 7^2)}$	2	3
2.	Gives correct answer: 36.8° to 36.9°	1	
	Shows correct work such as: $\sin^{-1} \frac{3}{5}$ or $\cos^{-1} \frac{4}{5}$ or $\tan^{-1} \frac{3}{4}$	1	2
3.	Gives correct answer: Triangle A	1	
	Gives correct explanation such as: Triangle 1 is an enlargement of Triangle A by a scale factor of 3.	1	2
4.	Gives correct answer: No and Gives a correct explanation such as finds the lengths of all three sides, $(\sqrt{225}, \sqrt{50}, \sqrt{245})$, and shows they don't satisfy the Pythagorean Rule. $245 \neq 225 + 50$.	3	
	 Accept other methods including: Uses trigonometry to find the angles (71,6, 81.9, 25.5) Triangle 3 is isosceles ∴ it has two 45° angles. Triangles 1 and 2 are not isosceles ∴ they do not have 45° angles. Angle in shaded triangle = 180° - 45° - non 45° angle ∴ ≠ 90° 		
	Partial credit		
	Gives a partially correct explanation.	(1)	
	Total Points		3 10

	Security Camera	Rubri	C
		Points	Section points
1.	Draws a straight line from the security camera (P) to the opposite side of the room as shown. May describe the sight line.	1	
	This line shows that F and H cannot be seen by the camera at P. Minus 1 for extras.	2	
	AO BO		
	Entrance D _D		
	E F GO		
	HO 0 0		
			3
2.	Correctly, shows/explains the area that cannot be seen by the camera. Three of the twenty squares cannot be seen $3/20 = 15\%$	1 1 1	3
3.	Q P		
	Entrance D _D		
	E G G K O	1	
	Q can be placed one square left or right of the centre.	1	
	The area of two of the twenty squares cannot be seen if the camera is placed at Q (or to the side of Q), the centre of the side. $2/20 = 10\%$	2	
	Partial credit Correctly shows the area that cannot be seen but no calculation.	(1)	4
	Total points		10

Sidewalk Stones	ewalk Stones Ru	
	Points	Section points
Gives correct answers and shows correct calculations such as:		
Number of gray Stones $4n^2 + (2n+1)^2 = 8n^2 + 4n + 1$	3	
Number of white stones $4n(2n + 1) = 8n^2 + 4n$	2	
Calculates pattern number for 841 gray stones		
$4n^2 + (2n+1)^2 = 841$		
$2n^2 + n - 210 = 0$		
(2n+21)(n-10) = 0		
n = 10	2	
Provides clear explanations Partial credit	2	
Provides some explanation	(1)	
Finds the number of white stones		
$4 \times 10 \times 21 = 840$	1	10
Total	Points	10

Sugar Prices			Rubric	
		Points	Section points	
(a).	Gives correct answer: D	1	1	
(b).	Gives correct answer: B	2	2	
©.	Gives correct answer: C and E	2	2	
(d).	Gives correct answer: A and C	2	2	
(e).	Gives correct answer: C	1		
	Gives correct explanation such as: price ÷ weight is smallest ratio	2	2	
	Total Points		3 10	