Institute \$	the state of the s	K 3 T	TUNITUR WE KA	MUNITUR # # 3.	multille # # 3 .	Institute
K Maitute 1.	For what value of .	State Mathem N x, does the equation,	hatics Finals: L May 3, 2018 $8y+7 = 2y^2 + 3x$, 1	evel III	tion for y?	Institute
K Institute 2.	A. 0 % Which of the follo	B. 1 G	2.3 D. bes the points that a	5 E. re equidistant from	none of these 3 * (6, 0) and (0, 8)?	tinstitut ^e
R.	A. $(x-6)^2 + (y-1)^2$	8) ² = 100 B D. $4x + 3y = 24$	$x^{2} + (y - 8)^{2} = 100$ E.	0 C. $(x-6)^2$ 3x-4y = -7	$y^{2} = 100$ 3 %	Institute
3.	Determine the area A. 336 cm ²	a of a right triangle w B. 480 cm ² C	hose hypotenuse is : . 672 cm ² D.	50 cm and whose <u>p</u> 1,550 cm ² E.	perimeter is 112 cm 2,800 cm ²	n.
4.	Four coins are pull that all the coins h the four coins is ex A. $\frac{2}{105}$	ed from a jar that con ave an equal chance of actly 40ϕ ? B. $\frac{1}{84}$ C	tains four nickels, for being pulled, what $\frac{3}{70}$ D.	five dimes and a quat is the probability $\frac{7}{400}$ E.	harter. Assuming that the value of $\frac{1}{42}$	Institute
5.	A trapezoid with twits area. A. $25\sqrt{3}$ cm ²	wo internal angles mo B. 150 cm ² C. 10	easuring 60° has three $0 + 25\sqrt{3}$ cm ² D	the sides of length 1 0. $75\sqrt{3}$ cm ² E.	0 cm. Determine none of these	matitute
R.	A triangle with ver A. 8.4	tices, (0, 4), (3, 0) ar	ad $(x, 2x)$, has area o	of measure 42. If x 36 E.	> 0, determine <i>x</i> .	tastitut?
R.	this the state of	t 3 PR	成 Tayitute 新林塔 W	C TOWININ AN X 3 PR	myitute \$ # # 3 #	Institute
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7. Barbara wants to raise her average in English class to at least a 93 by doing well on her term paper. At the present, she has a 98 on her homework grade, a 95 on her participation grade, and an 89 as her test average. Suppose homework counts as 10%, participation as 20%, the test average as 40%, and the term paper makes up the final part of her grade. What is the minimum grade that she needs on the term paper to achieve her goal? (Do not allow rounding, and assume that the grade on the term paper is a whole number.)

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multille m # " multille m # " Institute m # " multille m # 3 multinu m X 's multinu m # 3 Y. 25. A circle is inscribed inside a regular hexagon. A second regular hexagon is inscribed inside this circle. Find the ratio of the area of the large hexagon to the area of the small hexagon. C. $\sqrt{3}$:1 D. 2: $\sqrt{3}$ A. 2:1 B. 3:2 E. none of these Ro 26. Luigi's Pizza Parlor advertises 84 different three-topping pizzas. Assume he uses all the different combinations of their individual toppings, how many toppings does Luigi actually use? B. 9 A. 8 C. 10 D. 11 E. 12 而封胡桃恭祥等発 面动机机都样等除 junemikise Calculate the sum, $\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \dots + \frac{1}{420}$. R 27. C. 19/20 B. <u>197</u> 210 mailule ## 'EES 而如此他教祥等死 Ro A. 1 Institute # # * 28. The sum of two real numbers is 21, and the difference of their squares is 63. Find the product of the two numbers. 山山的新林塔路 Ro C. 104 D. 108 stitute the state A. 98 B. 101.25 E. 110 A triangle has area equal to $6\sqrt{6}$ square inches. One side is 6 inches long. Another side is 7 29. inches long. Which of these could be the length of the missing side. stitute # A. 8 inches B. $\sqrt{13}$ inches C. 5 inches D. $\sqrt{84}$ inches E. 9 inches D. -0.28 C. tan(-0.96) N. 30. Determine the exact value of $\cos(\sin^{-1}(-0.96))$? stitute the B. 0.04 A. 0.28 而如此他教林後然 而如此他称林塔然 mittute ## # '\$ 1% Astitute # # " " " astitute ## # '% PK Withthe \$6 # 'S PS Y. to the the B Lo the the B to the the the to the the Be to the the B. Ph to the the By the Ro



