0 (a). Evaluate $10 - 2 \times 3$.

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0 (b). Let t be TNYWR.
What is the area of a triangle with base of length $2t$ and height of length $3t + 1$?

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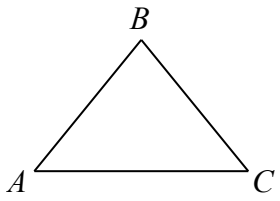
0 (c). Let t be TNYWR.
In the diagram, $\triangle ABC$ is isosceles with $AB = BC$. If $\angle BAC = t^\circ$, what is the measure of $\angle ABC$, in degrees?



1 (a). If $x : 6 = 15 : 10$, what is the value of x?

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1 (b). Let t be TNYWR.

If $\frac{3(x+5)}{4} = t + \frac{3-3x}{2}$, what is the value of x?

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1 (c). Let t be TNYWR.

The y-coordinate of the vertex of the parabola with equation $y = 3x^2 + 6\sqrt{m}x + 36$ is t.

What is the value of m?

2 (a). What is the sum of the x-intercept of the line with equation $20x + 16y - 40 = 0$ and the y-intercept of the line with equation $20x + 16y - 64 = 0$?

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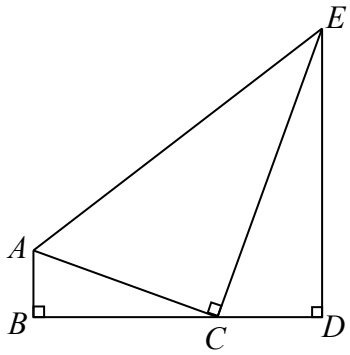
2 (b). Let t be TNYWR.
In the diagram, point C is on BD, $\triangle ABC$ is right-angled at B, $\triangle ACE$ is right-angled at C, and $\triangle CDE$ is right-angled at D. Also, $AB = 2t$, $BD = DE = 9t$, and $BC : CD = 2 : 1$.
If the area of $\triangle ACE$ is k, what is the value of $\frac{1}{36}k$?



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2 (c). Let t be TNYWR.
One cylinder has a radius of $\sqrt{2}$ and a height of a. Another cylinder has a radius of $\sqrt{5}$ and a height of b. How many pairs of positive integers (a, b) are there so that the sum of the volumes of the two cylinders is $10\pi t$?

3 (a). Let a be the largest positive integer so that a^3 is less than 999.
Let b be the smallest positive integer so that b^5 is greater than 99.
What is the value of $a - b$?

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3 (b). Let t be TNYWR.
Over the winter, Oscar counted the birds in his backyard. He counted three different types of birds: sparrows, finches and cardinals. Three-fifths of the birds that he counted were sparrows. One-quarter of the birds that he counted were finches. If Oscar counted exactly $10t$ cardinals, how many sparrows did he count?

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3 (c). Let t be TNYWR.
A large theatre has 20 rows of seats. Each row after the first row contains 4 more seats than the previous row. If there are $10t$ seats in total, how many seats are there in the first row?