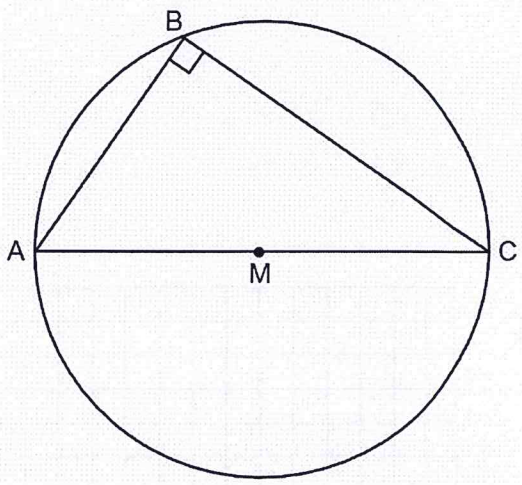
Bellwork Alg 2 Thursday, February 28, 2019

1. Simplify.

$$\frac{3}{10x^2-90}-\frac{7x}{4x^3-4x^2-24x}-\frac{2}{12x^3-36x^2}$$



2. In the figure above $\triangle ABC$ is incsribed in Circle M. The area of $\triangle ABC = 24$ and $AB = 6$. Find the area of Circle M to the nearest tenth.

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ANSWERS

1. Simplify.

$$\frac{3}{10x^2-90}-\frac{7x}{4x^3-4x^2-24x}-\frac{2}{12x^3-36x^2}$$

$10(x^2-9)$

$10(x+3)(x-3)$

$4x(x^2-x-6)$

$4x(x-3)(x+2)$

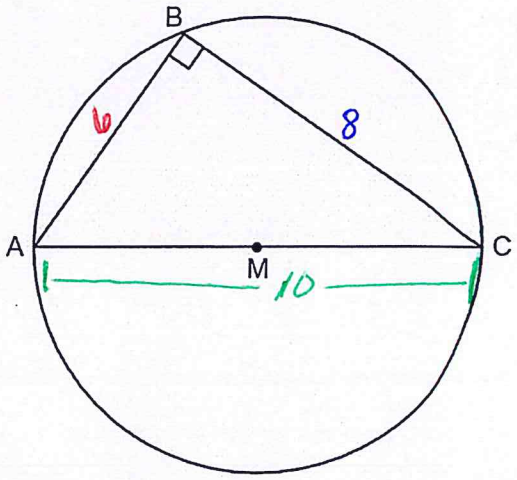
$12x^2(x-3)$

LCD: $60x^2(x+3)(x-3)(x+2)$

$$\frac{18x^2(x+2)}{60x^2(x+2)}\cdot\frac{3}{10(x+3)(x-3)}-\frac{-105x^2(x+3)}{4x(x-3)(x+2)}\cdot\frac{15x(x+3)}{15x(x+3)}-\frac{-10(x^2+5x+6)}{12x^2(x-3)}\cdot\frac{x^2+5x+6}{5(x+2)(x+3)}$$

$$\frac{18x^3+36x^2-105x^3-315x^2-10x^2-50x-60}{60x^2(x\pm3)(x+2)}$$

$$=\frac{-87x^3-289x^2-50x-60}{60x^2(x\pm3)(x+2)}$$



2. In the figure above $\triangle ABC$ is incsribed in Circle M. The area of $\triangle ABC = 24$ and $AB = 6$. Find the area of Circle M to the nearest tenth.

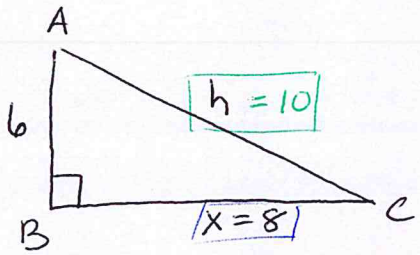
$AC = 10$ = diameter → radius $= 5$

Area of a circle

$A = \pi r^2$

$A = \pi(5)^2$

$A = 78.5$



Area ABC = 24

$\frac{1}{2}(x)(6) = 24$

$3x = 24$

$x = 8$

FIND HYPOTENUSE!

$6^2+8^2 = h^2$

$36+64 = h^2$

$\sqrt{100} = \sqrt{h^2}$

$h = 10$