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Marcellus is traveling abroad in Ghana and using traveler's checks, which he has acquired from Easy Traveler's Savings Bank. Easy Traveler's Savings Bank charges a 7% fee on traveler's checks, which can then be used like cash at any location overseas at the same exchange rate, and any change will then be returned to Marcellus in local currency. For this trip, Marcellus bought a 651 Cedi traveler's check and paid a fee of 32.30 USD (United States dollars) for the check.

While in Ghana, Marcellus finds Leon's Pawnshop and Barter, which offers store credit for Marcellus's briefcase equal to its value in Cedis. If Marcellus's briefcase is worth 5,000 USD at the same exchange rate at which he bought his traveler's check, then how much store credit, to the closest Cedi, will Marcellus receive for the briefcase?

~~651(1.07) = 32.3~~

$$\frac{651(1.07)}{32.3} = \frac{32.3}{32.3}$$

$$1.4108 = 1$$

$$5000 \cdot 1.4108 = 7054$$

$$7054.179 = 5000$$



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A square is inscribed in a circle. The area of the square is what percent of the area of the circle? (Disregard the percent symbol when gridding your answer.)



$$\frac{s^2}{\pi r^2}$$



$$\frac{1}{2}bh \cdot 4$$

$$2bh$$

$$\frac{\pi}{2} \frac{r^2}{r^2}$$

$$\frac{\pi r^2 - 2r^2}{\pi}$$

CONTINUE

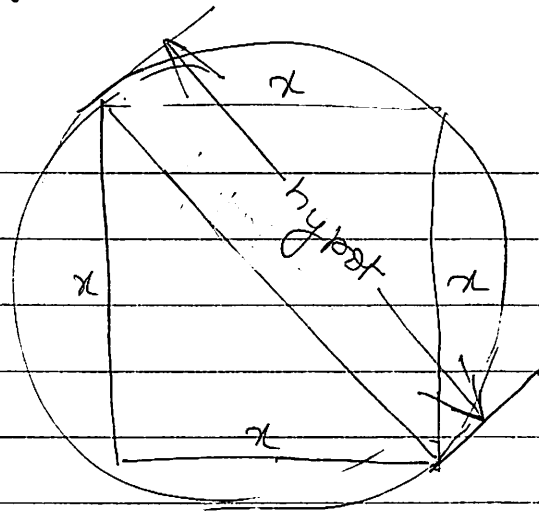
In a square

$$x^2 + x^2 = (\text{hypot})^2$$

$$2x^2 = (\text{hypot})^2$$

$$\sqrt{2x^2} = \sqrt{(\text{hypot})^2}$$

$$\boxed{x\sqrt{2} = \text{hypot}} = \text{diameter.}$$



ALSO, AREA of SQ = x^2 ————— eq, ①

AREA of circle = πr^2

$$= \pi \left(\frac{\text{hypot}}{2} \right)^2$$

$$= \pi \left\{ \frac{x\sqrt{2}}{2} \right\}^2$$

$$= \pi \left\{ \frac{x \cancel{\sqrt{2}}}{\sqrt{2} \sqrt{2}} \right\}^2$$

$$= \pi \frac{x^2}{2}$$

\therefore AREA of SQ is what% of circle

what% =

$$= \frac{\text{AREA of SQ}}{\text{Area of Circle}} \times 100$$

$$= 100 \times \frac{x^2}{\pi \frac{x^2}{2}} = \frac{2}{\pi} \times 100$$

$$= \frac{2}{3.142} \times 100$$

200

3142

= 63.66