4

31

If $9 > 3v - 3$, what is the greatest possible integer value of v?

$\frac{12}{3} > \frac{3v}{3}$

$4 > v$

3

32

In the expression $\frac{\frac{6}{5}}{\frac{12}{2y} - \frac{5}{y}} = 1$, what is the value of y?

$12y - 10y$

$2y^2$

$2y$

$2y^2$

$\frac{6}{5} \times \frac{2y^2}{2y}$

$\frac{12y^2}{10y} = 1$

$\frac{12y}{10} \times 10y = 12y^2$

$\left(\frac{10}{12}\right)^{\frac{12y}{10}} = \left(\frac{10}{12}\right)^1$

$y = 5/6$

33

During a presidential election, a high school held its own mock election. Students had the option to vote for Candidate A, Candidate B, or several other candidates. They could also choose to spoil their ballot. The table below displays a summary of the election results.

	Candidate A	Candidate B	Other	Total
10th grade	0.32	0.58	0.10	1.00
11th grade	0.50	0.42	0.08	1.00
12th grade	0.63	0.32	0.05	1.00
Total	0.48	0.44	0.08	1.00

614 students voted for Candidate A. Approximately how many students attend the school?

$\frac{614}{} = \frac{48}{100}$

294.72

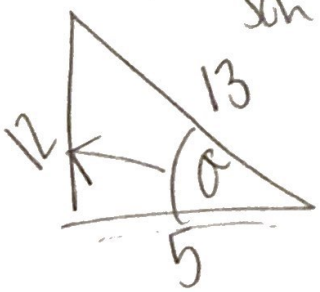
294

1279

34

If $\tan\theta = \frac{12}{5}$, then $\cos\theta =$

SOH CAH TOA



5/13

$\frac{48}{100} = \frac{614}{x}$

CONTINUE

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$$\frac{\frac{6}{5}}{\frac{12}{2y} - \frac{5}{y}} = 1$$

$$\Rightarrow \frac{6}{5} = 1\left(\frac{12}{2y} - \frac{5}{y}\right)$$

$$\Rightarrow \frac{6}{5} = \frac{12}{2y} - \frac{5}{y} \times \frac{2}{2}$$

$$= \frac{12}{2y} - \frac{10}{2y}$$

$$\Rightarrow \frac{6}{5} = \frac{12 - 10}{2y}$$

$$\Rightarrow \frac{6}{5} = \frac{2}{2y}$$

$$\Rightarrow \frac{6}{5} = \frac{1}{y}$$

$$\Rightarrow 6y = 5$$

$$\Rightarrow \boxed{y = \frac{5}{6}}$$