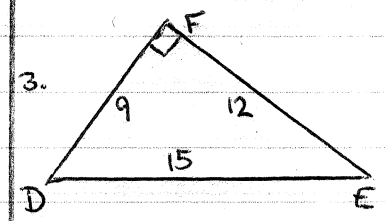
Geometry Ch 7-6 Exer, pg 471 #3-5, 7-15

Find sin D and sin E. Write each answer as a fraction and as a decimal, rounding to 4 places as necessary.

3.



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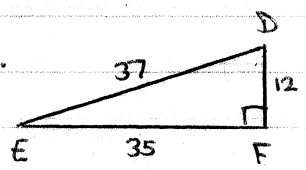

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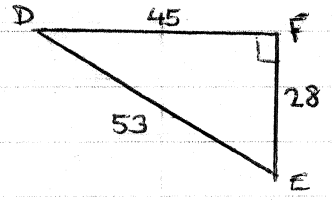


$\sin D = \frac{12}{15} = 0.8000$

$\sin E = \frac{9}{15} = 0.6000$

$\sin D = \frac{35}{37} = 0.9459$

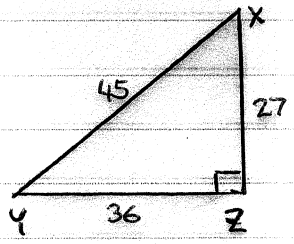
$\sin E = \frac{12}{37} = 0.3243$

$\sin D = \frac{28}{53} = 0.5283$

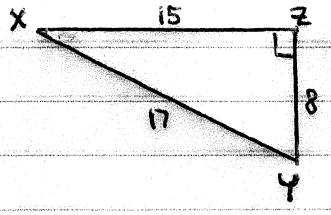
$\sin E = \frac{45}{53} = 0.8491$

Find cos X and cos Y. Write each answer as a fraction and as a decimal, rounding to 4 places as necessary.

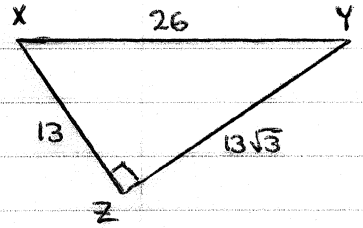
7.



8.



9.



$\cos X = \frac{27}{45} = 0.6000$

$\cos Y = \frac{36}{45} = 0.8000$

$\cos X = \frac{15}{17} = 0.8824$

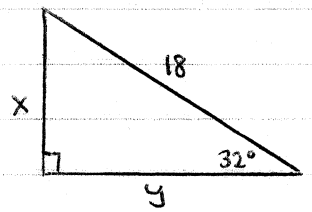
$\cos Y = \frac{8}{17} = 0.4706$

$\cos X = \frac{13}{26} = 0.5000$

$\cos Y = \frac{13\sqrt{3}}{26} = 0.8660$

Use a sine or cosine ratio to find the value of each variable. Round decimals to the nearest tenth.

10.



$\frac{x}{18} = \sin 32°$

$x = 18 \sin 32°$

$x = 18(.5299)$

$\boxed{x = 9.5}$

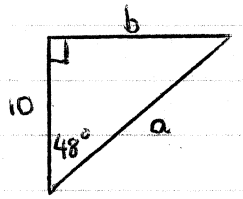
$\frac{y}{18} = \cos 32°$

$y = 18 \cos 32°$

$y = 18(.8480)$

$\boxed{y = 15.3}$

11.



$\cos 48 = \frac{10}{a}$

$a = \frac{10}{\cos 48}$

$a = \frac{10}{(.6691)}$

$\boxed{a = 14.9}$

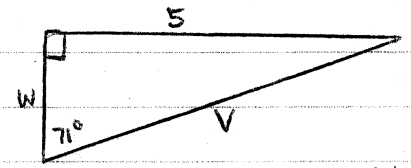
$\sin 48 = \frac{b}{a}$

$\sin 48 = \frac{b}{14.9}$

$14.9 \sin 48 = b$

$\boxed{11.1 = b}$

12.



$\sin 71 = \frac{5}{V}$

$V = \frac{5}{\sin 71}$

$V = \frac{5}{(.9455)}$

$\boxed{V = 5.3}$

$\cos 71 = \frac{W}{V}$

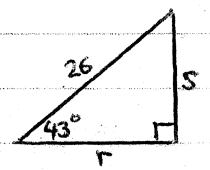
$\cos 71 = \frac{W}{5.3}$

$5.3 \cos 71 = W$

$5.3(.3256) = W$

$\boxed{1.7 = W}$

13.



$\frac{r}{26} = \cos 43$

$r = 26 \cos 43$

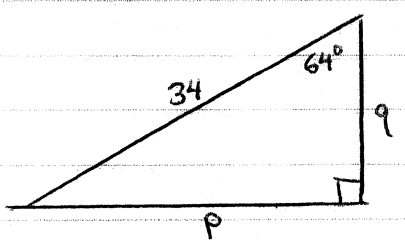
$\boxed{r = 19.0}$

$\frac{s}{26} = \sin 43$

$s = 26 \sin 43$

$\boxed{s = 17.7}$

14.



$\frac{p}{34} = \sin 64$

$p = 34 \sin 64$

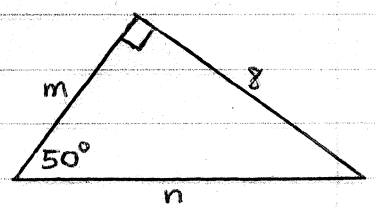
$\boxed{p = 30.6}$

$\frac{q}{34} = \cos 64$

$q = 34 \cos 64$

$\boxed{q = 14.9}$

15.



$\sin 50 = \frac{8}{n}$

$n = \frac{8}{\sin 50}$

$\boxed{n = 10.4}$

$\cos 50 = \frac{m}{n}$

$\cos 50 = \frac{m}{10.4}$

$10.4 \cos 50 = m$

$\boxed{6.7 = m}$