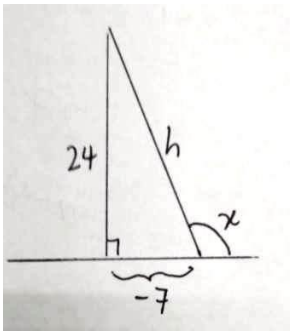
Answers:

(1) Given that $tanx = -\frac{24}{7}$

$\therefore\ x = 90° \ to\ 180°$




$h = \sqrt{24^2 + (-7)^2} = 25$

$sinx = \frac{24}{25}$

$cosx = -\frac{7}{25}$

$sinx + 2cosx = \frac{24}{25} + 2(-\frac{7}{25})$

$= \frac{10}{25} = \frac{2}{5}$

(2) (a) $\frac{sin\angle ADB}{20} = \frac{sin28°}{10}$

$sin\angle ADB = 2sin28°$

$\angle ADB = 69.9°\ or\ 110.1°$

Since $\angle ADB$ is obtuse, therefore $\angle ADB = 110.1°$

(b) $\angle BAC = 180° - 28° - 110.1° = 41.9°$

$\frac{BC}{20} = sin41.9°$

$BC = 13.4$ cm