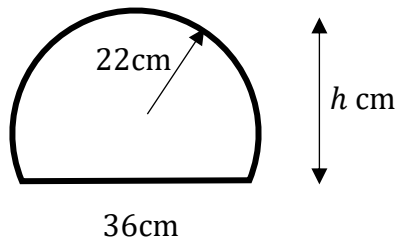


22. Solve this system of equations.

$$\begin{aligned} 3x - 2y &= 16 \\ 2x + 5y &= -2 \end{aligned}$$

23. A construction worker's safety hat is shown below with dimensions shown. If its base width is 38cm and its radius is 22cm, calculate its height,  $h$ cm

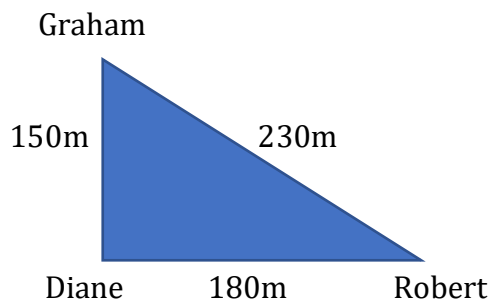


24. Express as a single fraction in its simplest form

$$\frac{x+4}{3} - \frac{2x-5}{4x}$$

25. The diagram below shows Diane and Robert standing 180 metres apart. Graham is 140 metres from Diane and 220 metres from Robert.

If Diane is standing due West of Robert, is Graham standing due North of Diane?  
Show all your working.



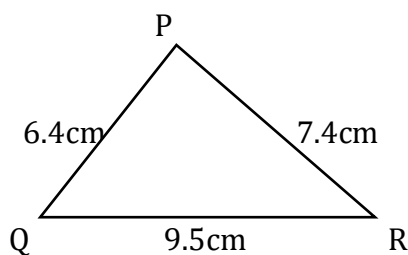
26. Solve each of these equations:

a).  $25x^2 - 36 = 0$

b).  $x^2 + 12x + 36 = 0$

c).  $3x^2 - 5x - 12 = 0$

27. Calculate the size of angle PRQ in the diagram below.



28. State the exact value of

$$64^{-\frac{2}{3}} + 32^{-\frac{3}{5}}$$

