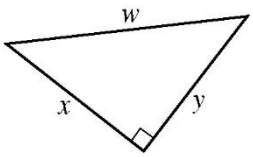
HOMEWORK 9 Term 4 Sheet 7 Name:_____

If a question has more than 1 mark, show some working out for full marks. Due:_____

1. Pythagoras' Theorem

State Pythagoras' Theorem for this triangle.

$___^2 = ____^2 + ____^2$



2. Fractions

a) Write down two fractions which fall between ½ and ¾.

b) Change these decimals to fractions

0.25

$0.\dot{3}$

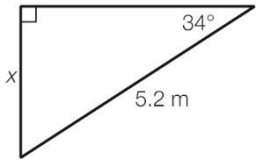
3. Statistics

Fill in the following frequency table

Age of Students	Frequency	$f \times x$
11	3	
12	5	
13	9	
14	4	
15	3	
totals		

4. Trigonometry

Use the sine ratio to find *x*.



5. Factorise

(What two number multiply to give the end number and add/subtract to give the middle number?)

a) $x^2 + 9x + 20$

( ) ( )

b) $x^2 - 5x + 6$

( ) ( )

6. Geometry

Show a pair of vertically opposite angles

7. Indices

Simplify

a) $15c^9 \div 3c$

b) $(a^3)^2$

8. Financial Arithmetic

Helen is paid an annual salary of $65 400. How much is her fortnightly pay?

9. Measurement

Find the volume of this cylinder

$V = \pi r^2 h$

10. Solving Equations

a) $\frac{w}{4} = -20$

b) $4x - 6 = 14$

c) $2y + 8 = 18$

d) $\frac{x}{3} + 2 = 12$