

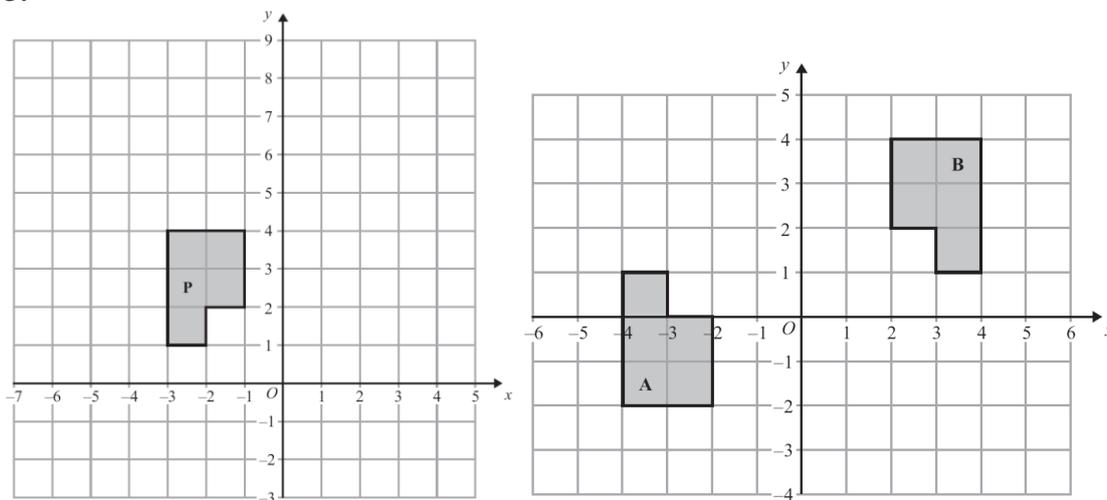
Year 10 end of year exam revision sheet

(Non-calculator)

1. Work out 5.4×0.24
2. Write the following numbers in order of size.
Start with the smallest number.

0.038×10^2 3800×10^{-4} 380 0.38×10^{-1}

3.



(a) Translate shape P by the vector $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$.

(b) Describe fully the single transformation that maps shape A onto shape B.

4. Simplify $2a^2b \times 3a^3b$
5. Talil is going to make some concrete mix. He needs to mix cement, sand and gravel in the ratio 1 : 3 : 5 by weight. Talil wants to make 180 kg of concrete mix. Talil has:

15 kg of cement

85 kg of sand

100 kg of gravel

Does Talil have enough cement, sand and gravel to make the concrete mix?

6. Suha has a full 600 ml bottle of wallpaper remover. She is going to mix some of the wallpaper remover with water. Here is the information on the label of the bottle.

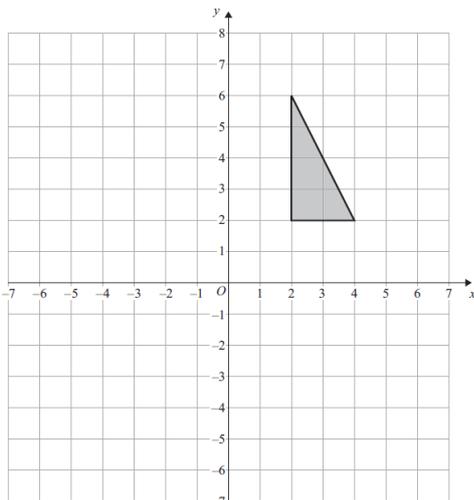
<p>Wallpaper remover 600 ml</p> <p>Mix $\frac{1}{4}$ of the wallpaper remover with 4500 ml of water</p>

Suha is going to use 750 ml of water. How many millilitres of wallpaper remover should Suha use? You must show your working.

7. Sasha carried out a survey of 60 students. She asked them how many CDs they each have. This table shows information about the numbers of CDs these students have.

Number of CDs	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24
Frequency	8	11	9	14	18

- (a) Write down the class interval containing the median.
 (b) Draw a frequency polygon to show the information given in the table.
8. Make q the subject of the formula $5(q + p) = 4 + 8p$. Give your answer in its simplest form.
9. (a) Expand and simplify $(x - 3)(x + 5)$
 (b) Solve $x^2 + 8x - 9 = 0$
10. (a) Write down the value of $49^{\frac{1}{2}}$
 (b) Write $\sqrt{45}$ in the form $k\sqrt{5}$, where k is an integer.
11. $x = 0.\overline{045}$ Prove algebraically that x can be written as $\frac{1}{22}$
- 12.



14. Calculate:

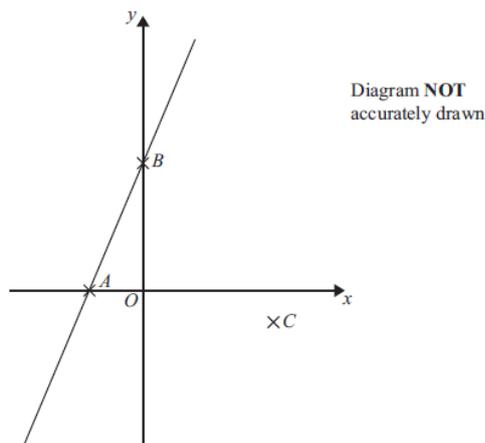
a. $4\frac{3}{8} + 3\frac{1}{5}$

b. $4\frac{3}{8} \times 3\frac{1}{5}$

c. $4\frac{3}{8} \div 3\frac{1}{5}$

Enlarge the shaded shape by a scale factor of $-1\frac{1}{2}$, centre $(0, 4)$.

13.



In the diagram A is the point $(-2, 0)$, B is the point $(0, 4)$ and C is the point $(5, -1)$
 Find an equation of the line that passes through C and is perpendicular to AB .