



## Collecting Like Terms Exam Practice

Q1. Simplify the following:

a)  $3x + 5x - x$

Answer: \_\_\_\_\_  
(2 marks)

b)  $7x + 5y - 2x + 9y$

Answer: \_\_\_\_\_  
(2 marks)

Q2. Simplify the following:

a)  $c + c + c$

Answer: \_\_\_\_\_  
(2 marks)

b)  $-8u + 5v - 12u + 9v + 6$

Answer: \_\_\_\_\_  
(2 marks)



Q3. Simplify the following:

a)  $3c \times 4d$

Answer: \_\_\_\_\_  
(1 mark)

b)  $6a \times 5 \times 3b \times 2$

Answer: \_\_\_\_\_  
(2 marks)

Q4. Simplify the following:

a)  $4a \times 5b + 7a \times -2b$

Answer: \_\_\_\_\_  
(2 marks)

b)  $10 \times 3u \times 6 \times 3v \times 2$

Answer: \_\_\_\_\_  
(2 marks)



Q5. Simplify the following:

a)  $\frac{20p - 8p}{4}$

Answer: \_\_\_\_\_  
(2 marks)

b)  $\frac{9p - 2q + 17p}{2}$

Answer: \_\_\_\_\_  
(2 marks)

Q6. Simplify the following expression:

$$4xy + 5x + 7xy - 2x$$

Answer: \_\_\_\_\_  
(2 marks)



Q7. Simplify the following expression:

$$-5a^2 + 8a^2 + a^2$$

Answer: \_\_\_\_\_  
(2 marks)

Q8. Simplify the following expression:

$$e^3 + 8f^2 - 1 + 6e^3 - 19f^2 - 13$$

Answer: \_\_\_\_\_  
(3 marks)



Q9. Simplify the following expressions fully:

a)  $2x + 3xy - 41 - 5y + 12x - 11xy - 12$

Answer: \_\_\_\_\_  
(3 marks)

b)  $\frac{5x + 2x - 35x}{2x}$

Answer: \_\_\_\_\_  
(3 marks)

### Applied Mixed Practice Problems

Q10. Alex buys  $x$  stamps, Ben buys  $y$  stamps and Chad buys  $3x$  stamps.  
Find an expression for how many stamps they have bought altogether.

Answer: \_\_\_\_\_  
(3 marks)

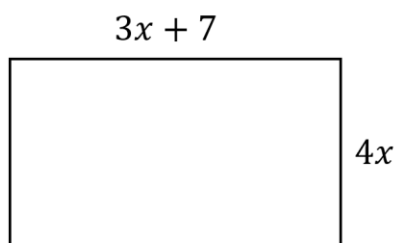


Q11. Kay buys  $p$  pens, Ben buys twice as many pens as Kay, and Rod buys 2 more pens than Ben. Work out an expression for how many pens they have bought altogether.

Answer: \_\_\_\_\_  
(3 marks)



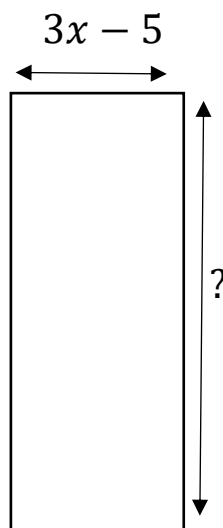
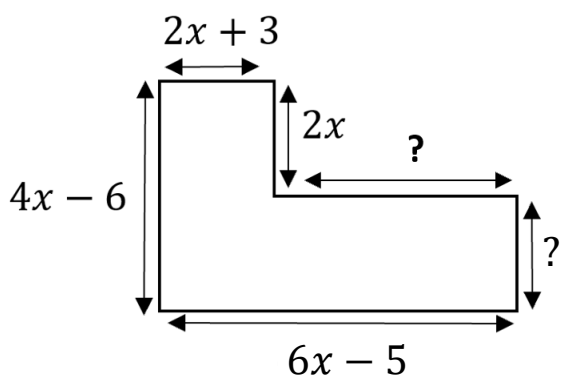
Q12. Find an expression for the perimeter of the shape below, in terms of  $x$ , simplifying your answer fully.



Answer: \_\_\_\_\_  
(3 marks)



Q13. The perimeter of the two shapes below are equal. For each shape, find an expression for the missing sides in terms of  $x$ , simplifying your answers fully.



Answer: \_\_\_\_\_

(5 marks)



