# Quadratics B

### Vocabulary:

<https://quizlet.com/_551osj>

Squared

Cubed

Expression

Term

Variable

Constant

Combine like terms

Expand = rewrite without brackets

Quadratic

### Prerequisite:

To expand brackets

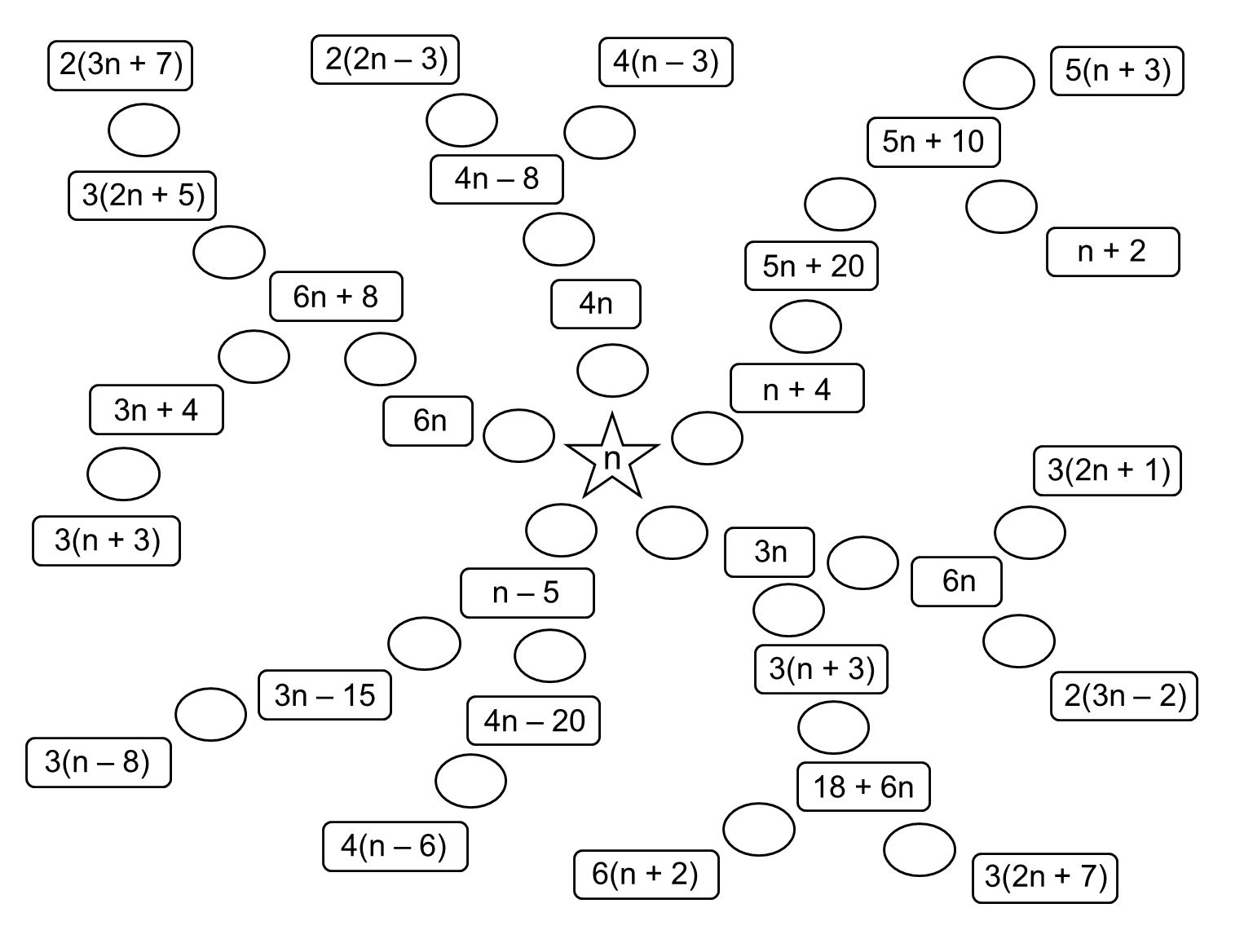
### Check:

Expand the following on mini-whiteboards.

### Activities:

Direct teaching

Or



### Prerequisite:

To simplify expressions

### Check:

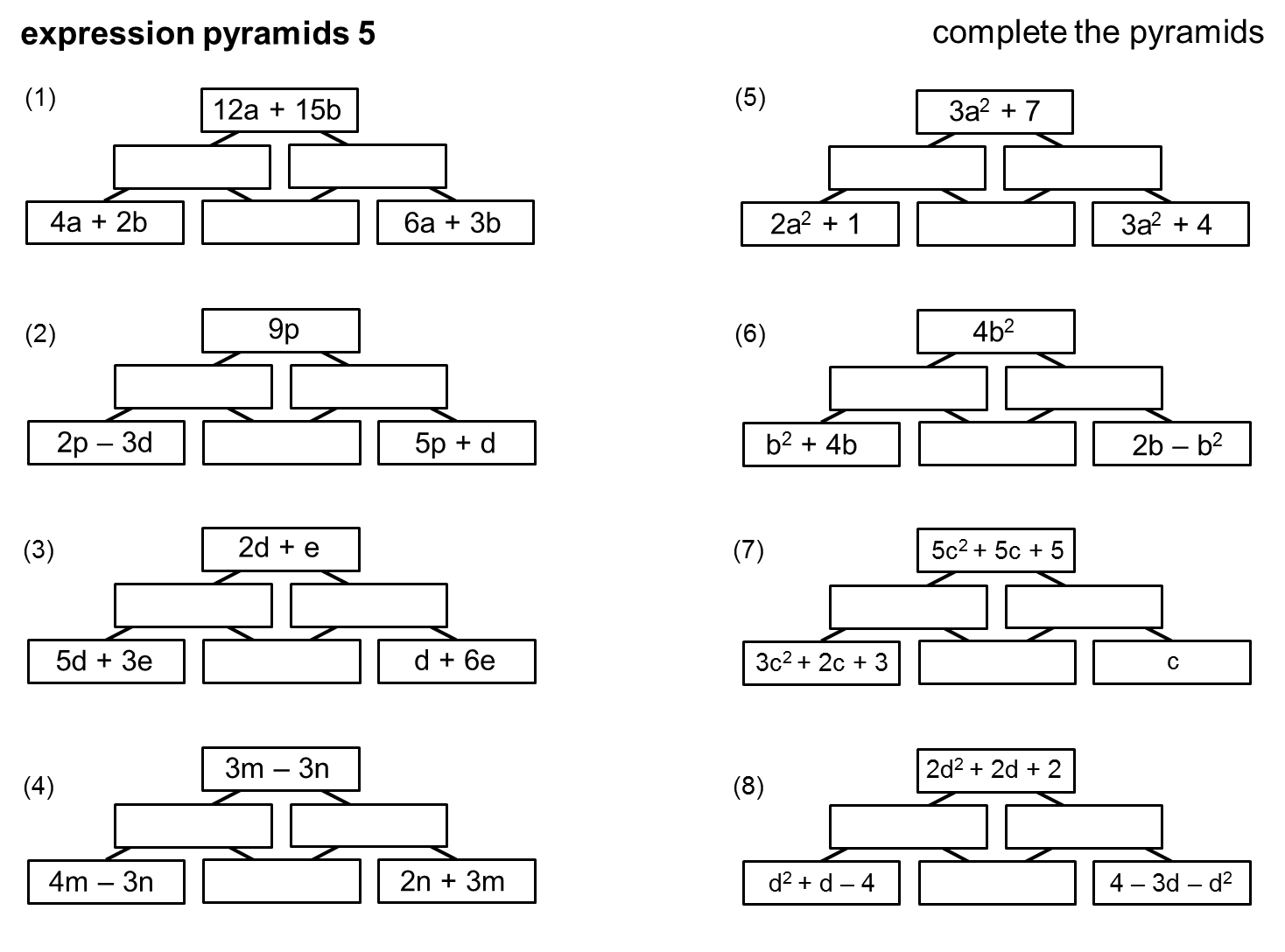
Simplify the following on mini-whiteboards.

### Activities:

Direct teaching

Or

Quadratics B prerequisite extension 2



### Aims:

To expand multiple brackets and simplify the resulting expressions

### Activities:

Example

### Aims:

To avoid the classic double negative error

### Activities:

Examples

Comment on the difference between the final number of terms.

Quadratics B Practice:

1. Expand and simplify the following expressions.

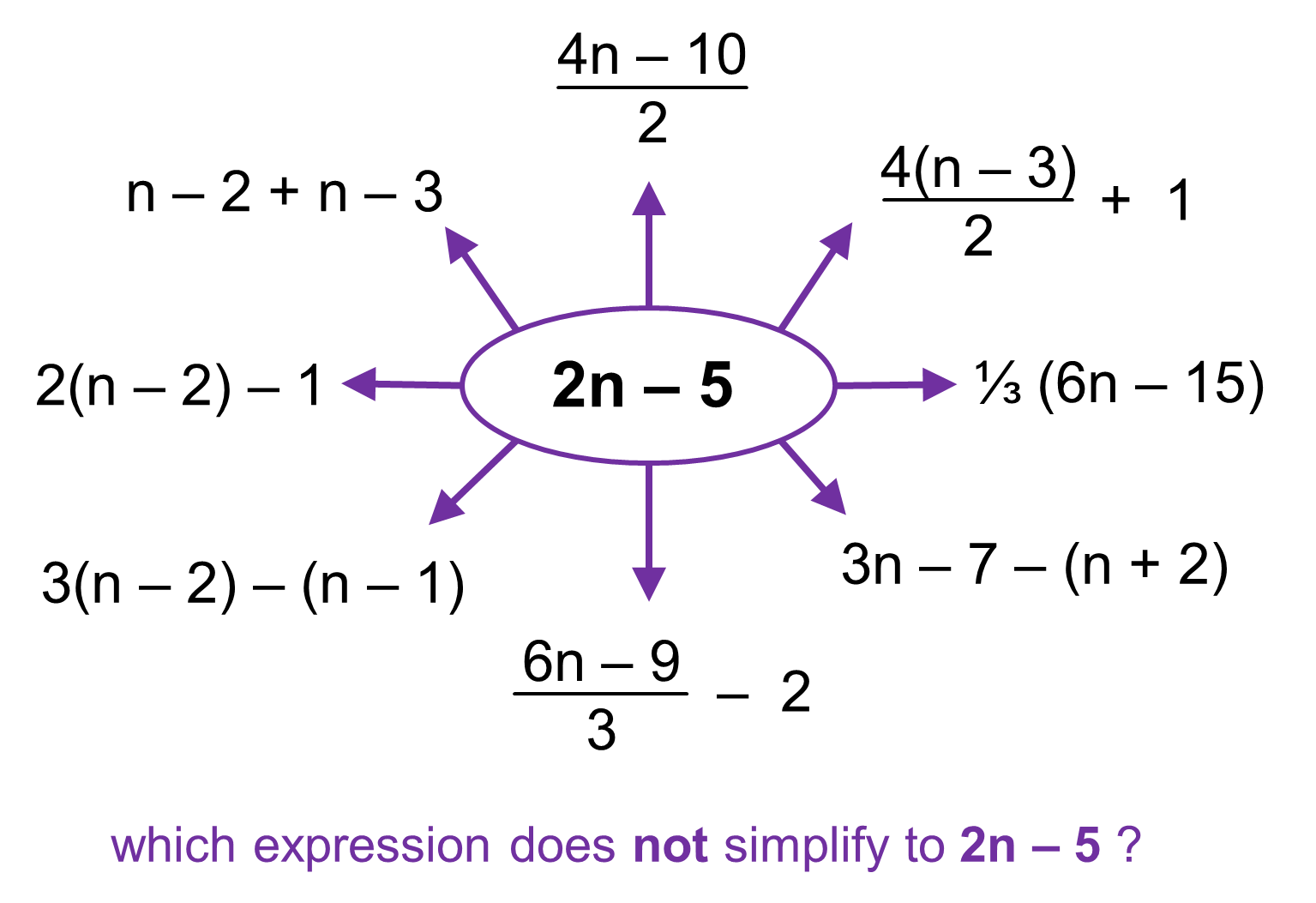
a) 

b) 

c) 

d) 

2. Check your answers in q.1 by substituting in a suitable value for the letter eg. in 1a), substitute *a* = 1 in both the expression in the question and the expression in your answer – do you get the same answer each time?



3. a) Expand and simplify the following: 

b) Hence evaluate without doing lots of horrible calculations.

4. a) Expand and simplify the following: 

b) Hence evaluate 

5. a) Expand and simplify the following: 

b) Hence evaluate without doing lots calculations. What is *g* equal to in this calculation?

6. A new taxi firm is using the following formula to price its journeys:

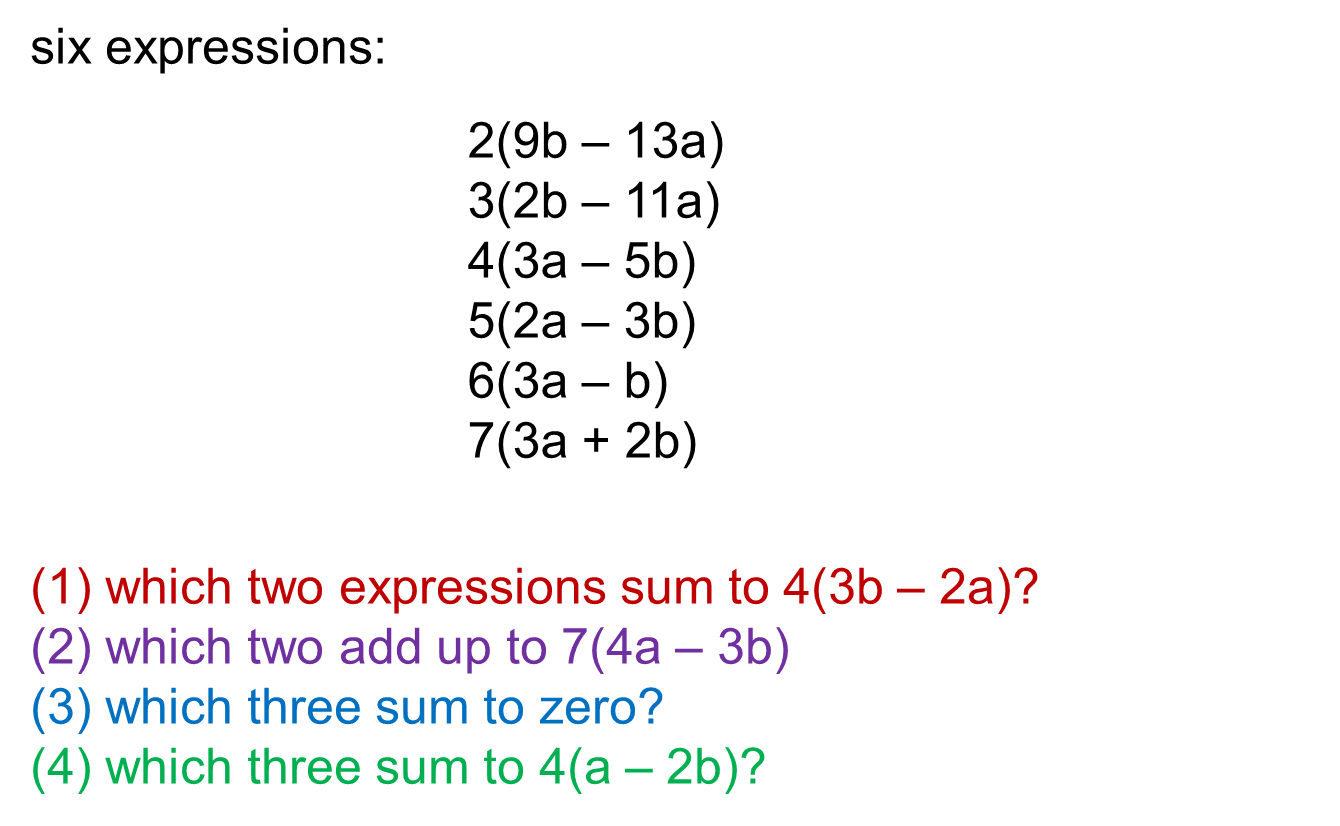
, where the distance travelled in miles.

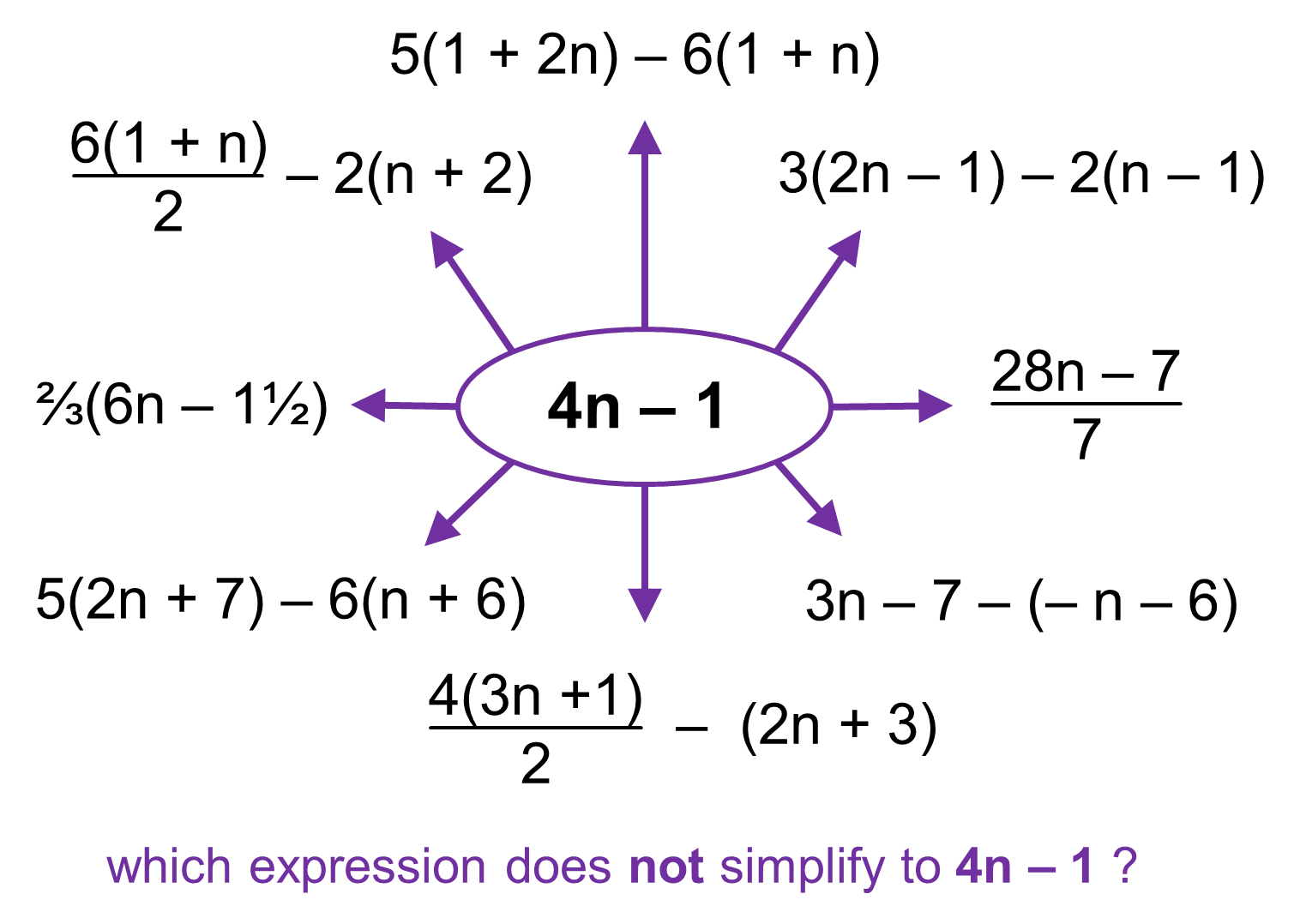
Why is this formula flawed?

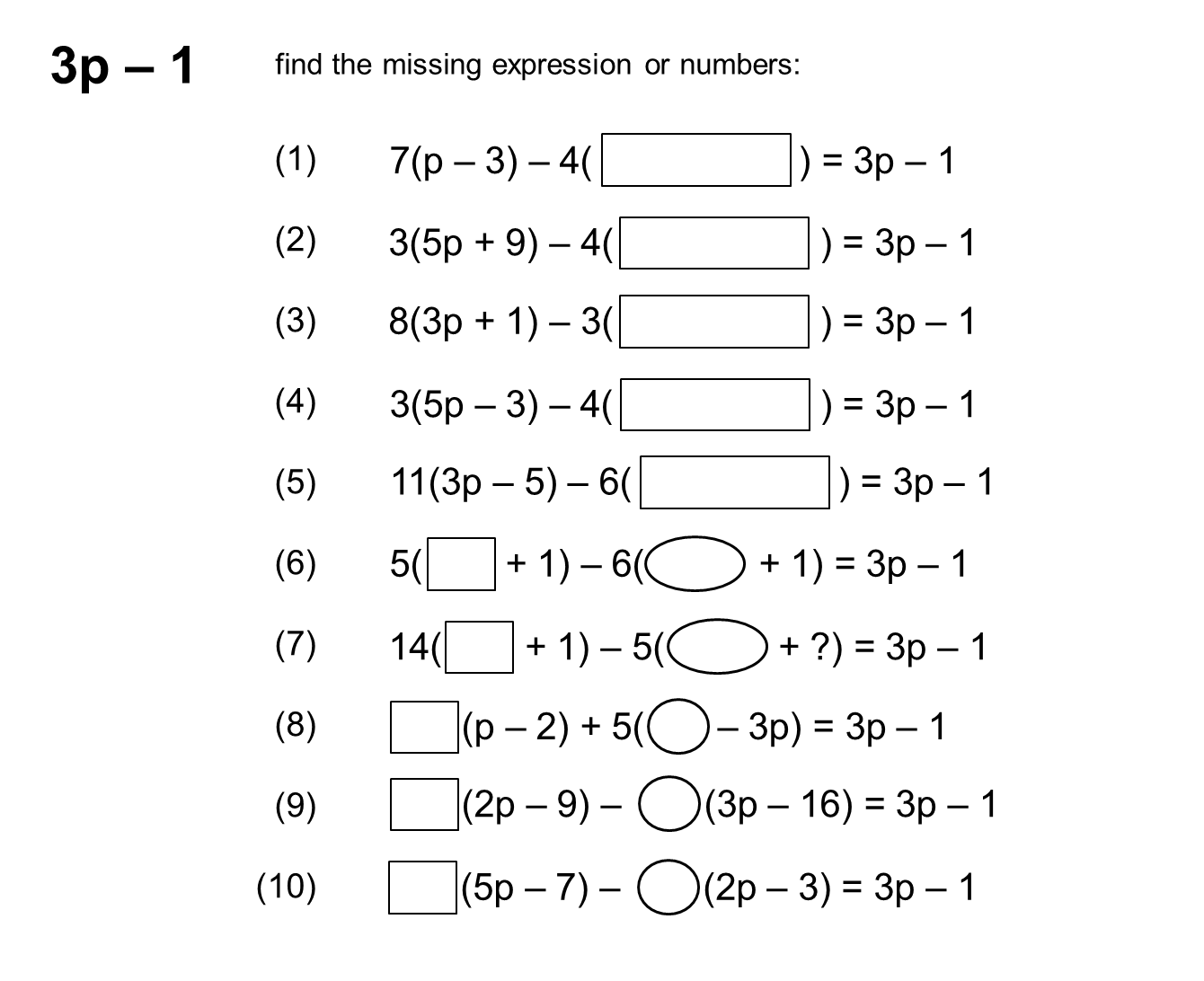
7. My cat is quite old, and has had the same weight for a very long time. My dog, when he was a puppy, weighed 2kg more than my cat. Now he weighs 10kg more than my cat. In fact my puppy’s weight has doubled in this time.

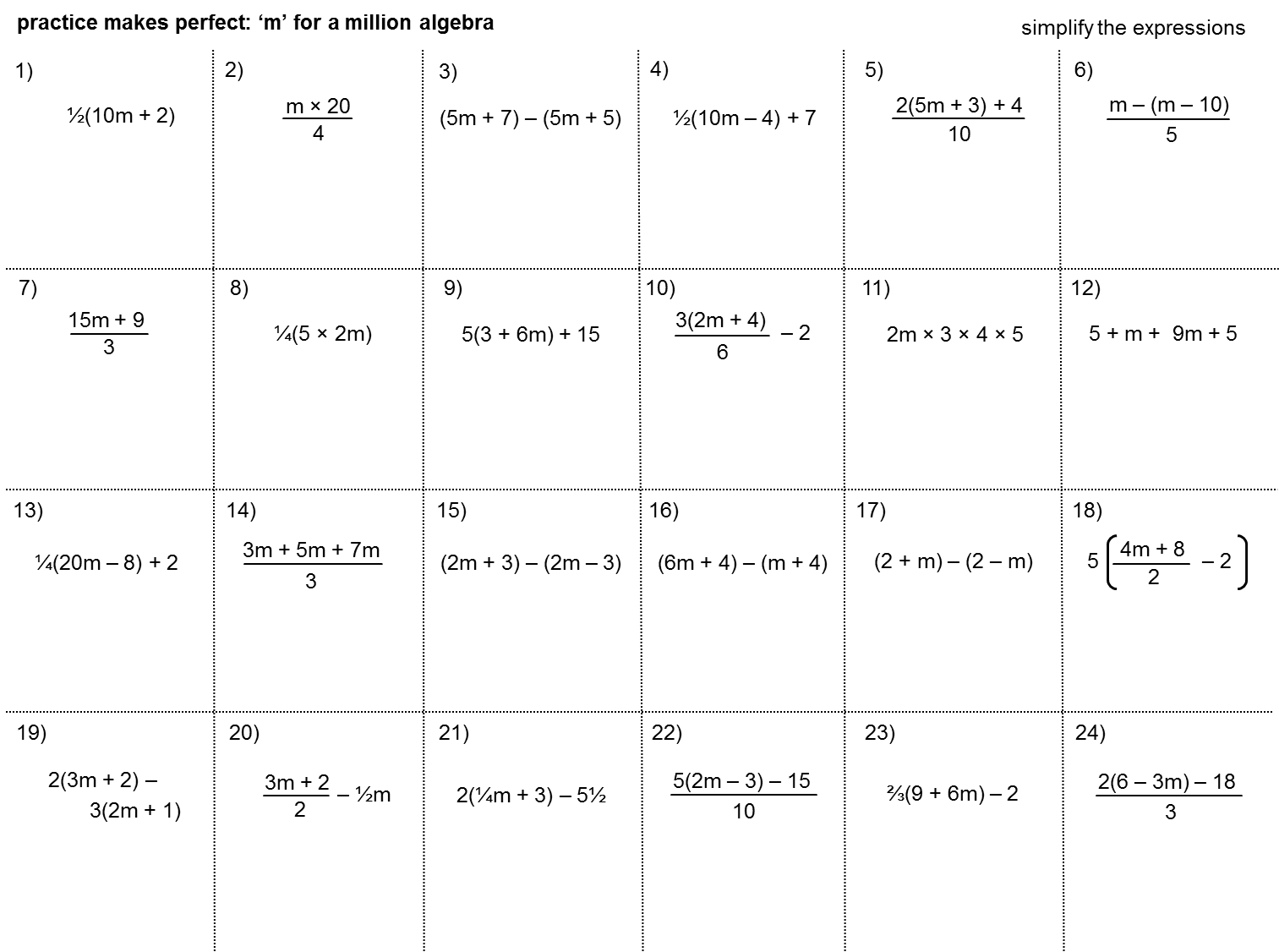
What is the weight of my cat?

Extensions:









### Assessment:

What does expand the brackets mean in maths?

What is the most common error when simplifying

?

Expand and simplify it.