Year 8 Expressions and Equations – Developing

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Answers and worked solutions · 10 questions

A. Use algebra

1. **3(3 – n)**

Start with n and follow the steps in order

3(3 – n)

2. **n/4 – 8**

Start with n and follow the steps in order

n/4 – 8

3. **d = st**

Undo the operations on d in reverse order, doing the same to both sides

d = st

4. **l = (P – 2w)/2**

Undo the operations on l in reverse order, doing the same to both sides

l = (P – 2w)/2

5. **x = –5**

Subtract 5x from both sides: 4x – 2 = –22

4x = –20, so x = –5

Check by substituting x = –5

6. **x = –6**

Subtract 10: x/3 = –2

Multiply by 3: x = –6

Check by substituting x = –6

7. **x = 12**

Subtract 2x from both sides: 7x + 9 = 93

7x = 84, so x = 12

Check by substituting x = 12

8. **4n – 5 = 2n + 3; n = 4**

4n – 5 = 2n + 3

2n = 8

n = 4

9. **2, 3, 4, 5, 6**

≤ includes the end value; < does not

2, 3, 4, 5, 6

10. **–2, –1, 0, 1**

≤ includes the end value; < does not

–2, –1, 0, 1