**Lesson 6**

**Algebra, Change of Subject : GCSE**

## 6.1 Making letters, other than *x*, the subject

**Example 1**

***Showing full working***, make $k$ the subject

$$\frac{3m + 10p - 8a^2}{k} = \frac{1}{6}$$

**Example 2**

***Showing full working***, make $m$ the subject

$$\sqrt{\frac{4 + h}{m}} = \frac{p}{5}$$

## 6.2 Exercise

**Question 1**

***Showing full working***, make $a$ the subject

$$\sqrt{\frac{a}{3}} = 5w$$

**Question 2**

***Showing full working***, make $u$ the subject

$$\frac{3}{v + 4u} = \frac{1}{5e^2 + 7s}$$

**Question 3**

***Showing full working***, make $w$ the subject

$$\frac{2.4}{s} = w^2 - m$$

**Question 4**

***Showing full working***, make $m$ the subject

$$y = mx + c$$

**Question 5**

***Showing full working***, make $c$ the subject

$$\sqrt{c^2 - 5k} = 3p$$

**Question 6**

***Showing full working***, make $b$ the subject

$$\frac{b}{8} - 4h = 2t + 5$$

Write your answer without any brackets

**Question 7**

***Showing full working***, make $f$ the subject

$$\sqrt{3g + f} = \frac{3v}{w}$$

**Question 8**

***Showing full working***, by first multiplying both sides by 3, make $z$ the subject

$$\frac{1}{3z^2} = 2r + y$$

Write your answer without any brackets

**Question 9**

***Showing full working***, by first expanding the brackets, make $w$ the subject

$$h = 3\left(\frac{4}{w} + 5\right)$$

**Question 10**

***Showing full working***, make $p$ the subject

$$\frac{1}{5p^2} = \frac{3a + 2b}{16c^2}$$

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