3.1 Equation Solving Involving Brackets.

Question: Solve the equation;

$$4(6x + 7) - 9x + 2 = 35$$

Solution:

$$4 (6x + 7) - 9x + 2 = 35 expand$$

$$24x + 28 - 9x + 2 = 35 merge like terms$$

$$15x + 30 = 35 -30$$

$$15x = 5 \div 15$$

$$x = \frac{5}{15}$$

$$x = \frac{1}{3}$$

3.2 Exercise

No need for a calculator when answering these questions.

(i)
$$7(a+3)=35$$

(ii)
$$5(2m+1) = 75$$

(iii)
$$3(2p+3) = 33$$

(iv)
$$4(z-3)+1=13$$

(v)
$$4(a+8)+7=51$$
 (vi) $5(2e+1)+3=48$

(vi)
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(vii)
$$3(6p+3)-88=101$$
 (viii) $4+7(q+3)=53$

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(ix)
$$10(x+13)+11=111$$
 (x) $8(3y+10)-74=30$

$$(\mathbf{x})$$
 8 $(3y + 10) - 74 = 30$

(xi)
$$15(t+2)-100=5$$
 (xii) $7h+2(h+5)=37$

$$(xii)$$
 $7h + 2(h + 5) = 37$

(xiii)
$$3e + 5(2e + 1) = 44$$
 (xiv) $7k - 2(k + 5) = 15$

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$$(xv)$$
 5 $(e+7)$ - 3 $(e+5)$ = 32 (xvi) 13 k - 5 $(k+5)$ = 23

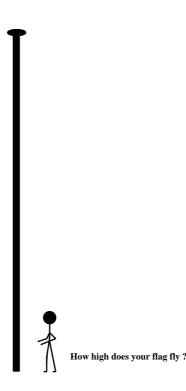
$$(xvi)$$
 13k - 5 $(k+5)$ = 2

(xvii)
$$4(n+3) = 14$$

(**xviii**)
$$5(k-12)=60$$

(ix)
$$\frac{2(d+4)}{3} = 10$$

(**xviii**)
$$\frac{2e}{3} + \frac{4e}{3} = 120$$



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