

1. Solve the following showing all working:

a)  $13.4 \times 19$

b)  $4(5 - 1) + 4^2 - 12$

c)  $180 \div 20 \times 3 - 5$

2. Find the highest common factor of:

a)  $12x^2$  and  $4x$

b)  $h^2$  and  $h$

c)  $5rb$  and  $br^2$

3. Factorise the following expressions:

a)  $2x^2 + 14$

b)  $6t^2 - 3t$

c)  $5 - 15r^2$

d)  $9xy - 12xz$

e)  $\frac{1}{2}x + \frac{1}{2}ax$

f)  $8d - 4d^2 + 2Ad$

4. Multiply out the brackets and simplify fully:

(a)  $3(6 + 2a)$

(b)  $8(6n - 5)$

(c)  $6v(4 + 8v)$

(d)  $-3(w + 2)$

(e)  $2(a + 1) + 4$

(f)  $6m + 4(m - 5)$

(g)  $3(c - 1) + 2(c + 4)$

(h)  $9(y + 1) - 4(y - 1)$

5. Find an expression for the area of the rectangle:

a) with brackets

b) without brackets

