

1. Find

(a)  $7 + 2 \times 3$

(b)  $6 - (3 - 6)$

(c)  $(3 + 5)^2$

(d)  $3^2 + 5^2$

(e)  $3 + 5^2$

(f)  $\frac{3}{5} \div \frac{2}{7}$

(g)  $\frac{5 - 2}{2/\sqrt{9}}$

\*Or  $\frac{21}{10}$  or  $2\frac{1}{10}$

\*\*Or  $\frac{9}{2}$  or  $4\frac{1}{2}$

2. Use a calculator to find

(a) the square of 17.2

(b) the square root of 143

3. Round to two decimal place accuracy.

(a) 3.414

(b) -2.449

(c) 0.015

(d) 3.3333...

4. Convert

(a)  $\frac{2}{25}$  to a decimal

(b)  $\frac{7}{16}$  to a percentage

(c) 0.625 to a fraction in simplest form

5. If  $a = 10$ ,  $b = -2$ ,  $c = 4$  and  $d = 25$  find

(a)  $\frac{a - b}{c}$

(b)  $a + bc/\sqrt{d}$   †Or  $\frac{42}{5}$  or  $8\frac{2}{5}$ .

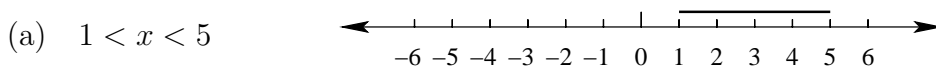
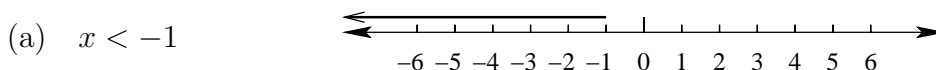
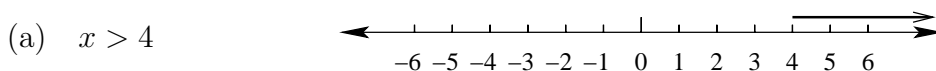
6. Let  $X$  be the number of heads we get in five tosses of a coin (ie.  $X = 0, 1, 2, 3, 4$  or  $5$  heads). Which possible values of  $X$  are included in each of the following statements?

(a)  $X \geq 3$

(b)  $X > 3$

(c)  $2 \leq X < 5$

7. Draw the sections of the real number lines below representing the following inequalities:



8. Solve for  $x$

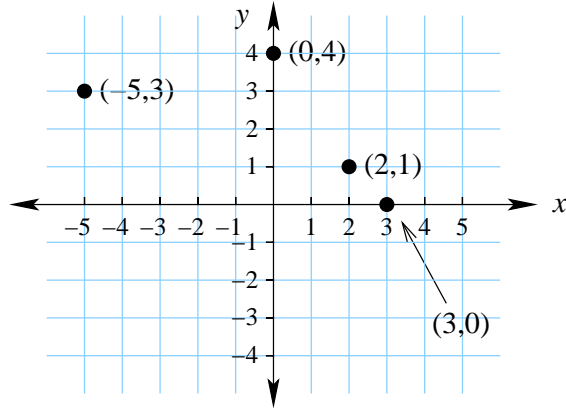
(a)  $z = \frac{x - 100}{15}$

$$x = 15z + 100$$

(b)  $1 < \frac{x - 5}{2} < 10$

$$7 < x < 25$$

9. Plot the co-ordinates  $(2, 1)$ ,  $(-5, 3)$ ,  $(3, 0)$ ,  $(0, 4)$  on the axes below:



10. For the line  $y = 2x - 1$

(a) What value does  $y$  take when  $x = 3$ ?

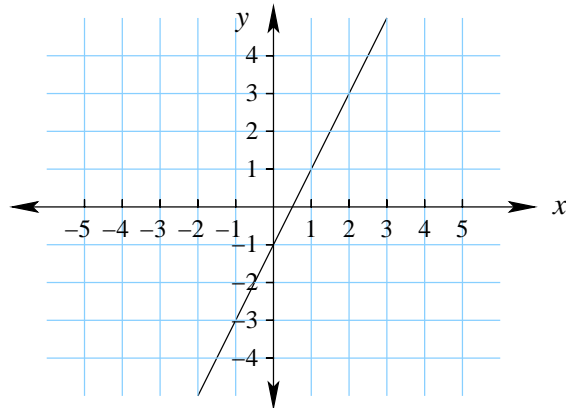
$$y = 5$$

(b) What is the value of the slope and  $y$ -intercept?

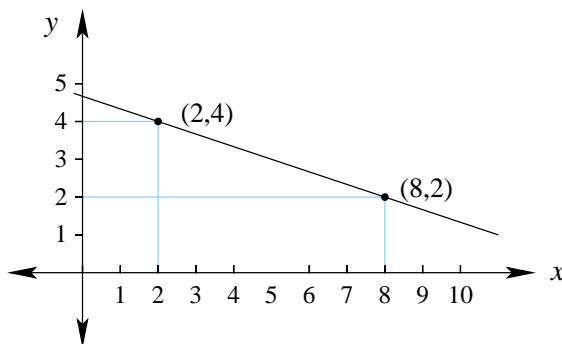
$$\text{slope} = 2$$

(c) Sketch the line on the axes below.

$$y - \text{intercept} = -1$$



11. Find the equation of the line below.



$$y = -\frac{1}{3}x + \frac{14}{3}$$