

Assignment

Simplify each expression. For fractions, make sure no radical is left in the denominator.

1) $2\sqrt{1000}$

2) $9\sqrt{40}$

3) $10\sqrt{80}$

4) $10\sqrt{900}$

5) $\sqrt{5} + \sqrt{2} + \sqrt{7} + \sqrt{5}$

6) $\sqrt{8} + \sqrt{8} + \sqrt{2} + \sqrt{8}$

7) $-2\sqrt{20} + 2\sqrt{6} - \sqrt{45}$

8) $4\sqrt{8} - 2\sqrt{6} - \sqrt{6}$

9) $-3\sqrt{5} - \sqrt{80} + 3\sqrt{5}$

10) $4\sqrt{63} + 3\sqrt{48} - 3\sqrt{12}$

11) $\sqrt{5}(\sqrt{3} + 4)$

12) $\sqrt{3}(4 + \sqrt{2})$

13) $\sqrt{5}(\sqrt{10} + 3)$

14) $\sqrt{3}(-\sqrt{3} + 3\sqrt{10})$

15) $\frac{\sqrt{15}}{4\sqrt{48}}$

16) $\frac{4\sqrt{5}}{\sqrt{45}}$

17) $\frac{\sqrt{3}}{\sqrt{27}}$

18) $\frac{2\sqrt{12}}{3\sqrt{3}}$

Points A, B, C, and D are collinear and positioned in that order. Find the length indicated.

19) Find BD if $AB = x + 5$, $AC = x + 8$,
 $CD = 11$, and $BD = x + 16$.

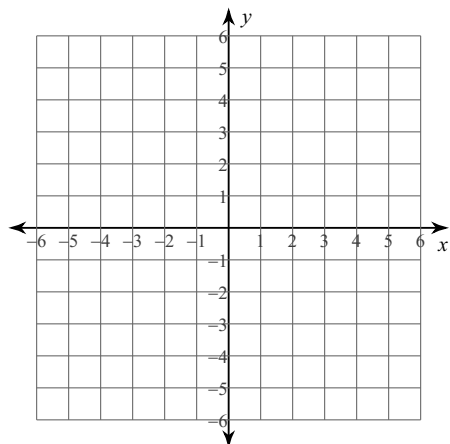
20) $BC = 13 + x$, $AD = x + 28$, $AC = 20$,
and $BD = x + 18$. Find BC .

21) Find AB if $CD = 10$, $AB = 2x - 23$,
 $BC = x - 3$, and $AD = 2x - 4$.

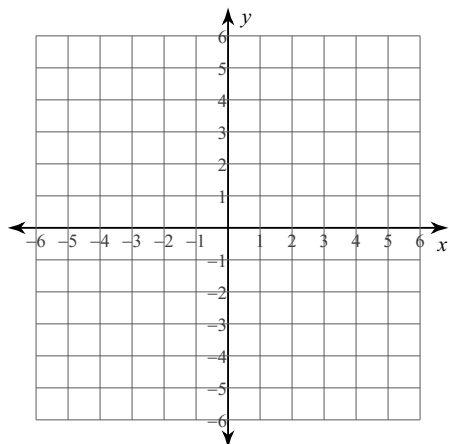
22) $AD = 2x - 13$, $BC = 2x - 22$, $CD = 7$,
and $AB = 2x - 22$. Find AB .

Sketch the graph of each line.

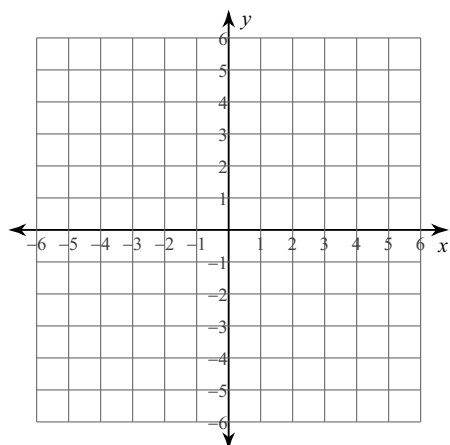
23) $y = \frac{1}{3}x + 3$



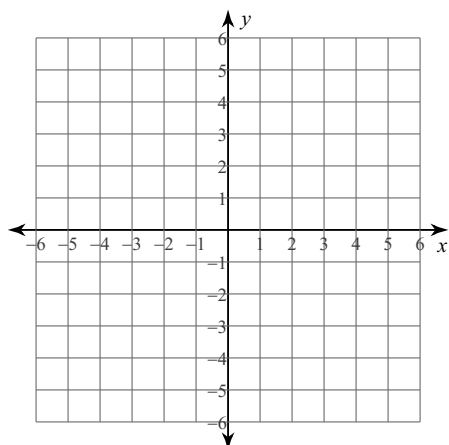
24) $y = -\frac{8}{5}x - 4$



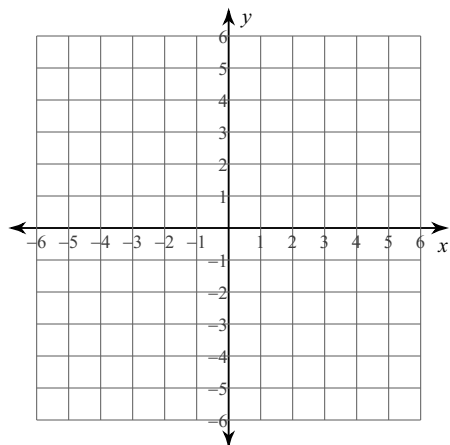
25) $7x + 5y = -10$



26) $x - 4y = 12$



27) $16 = 4y - x$



28) $-9y - 36 = -24x$

