

Assignment

Date _____ Period _____

Simplify.

1) $\sqrt{27}$

2) $\sqrt{20}$

3) $10\sqrt{210}$

4) $4\sqrt{36a^5}$

5) $\sqrt{6} \cdot \sqrt{10}$

6) $\sqrt{3} \cdot \sqrt{15}$

7) $\sqrt{15}(2 + 2\sqrt{10})$

8) $5\sqrt{6}(\sqrt{6} + 5)$

9) $\frac{5\sqrt{20}}{4\sqrt{25}}$

10) $\frac{5\sqrt{4}}{5\sqrt{9}}$

11) $\frac{\sqrt{5}}{-3 + \sqrt{5}}$

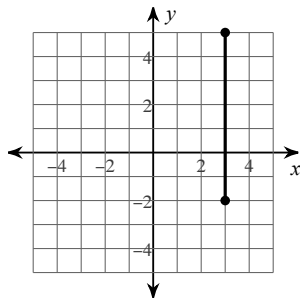
12) $\frac{5}{2 - 3\sqrt{5}}$

13) $\frac{-5x + \sqrt{2x^3}}{\sqrt{3x^3} + 3x^2}$

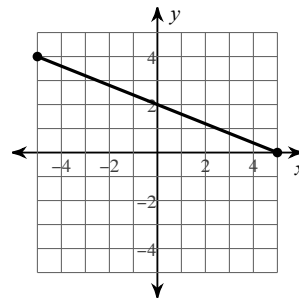
14) $\frac{-4 + 4\sqrt{3n^3}}{4 - \sqrt{5n^4}}$

Find the distance between each pair of points.

15)



16)



17) $(3, -1), (8, 1)$

18) $(-5, -5), (3, -1)$

19) $(\sqrt{6}, -6\sqrt{3}), (2\sqrt{6}, -\sqrt{3})$

20) $(3\sqrt{2}, -6), (\sqrt{2}, 4)$

Find the midpoint of the line segment with the given endpoints.

21) $(-1, 5)$, $(6, 6)$

22) $(2, 5)$, $(2, -6)$

23) $(1.9, -11.4)$, $(-0.803, 1.6)$

24) $(-2, 3.7)$, $(-11.8, -6.7)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

25) Endpoint: $\left(-3\frac{6}{7}, -2\frac{2}{7}\right)$, midpoint: $\left(-1\frac{1}{2}, 2\frac{1}{4}\right)$

26) Endpoint: $\left(-\frac{7}{8}, -\frac{3}{4}\right)$, midpoint: $\left(-\frac{6}{5}, 3\right)$

Answers to Assignment (ID: 1)

1) $3\sqrt{3}$

2) $2\sqrt{5}$

3) $10\sqrt{210}$

4) $24a^2\sqrt{a}$

5) $2\sqrt{15}$

6) $3\sqrt{5}$

7) $2\sqrt{15} + 10\sqrt{6}$

8) $30 + 25\sqrt{6}$

9) $\frac{\sqrt{5}}{2}$

10) $\frac{2}{3}$

11) $\frac{-3\sqrt{5} - 5}{4}$

12) $\frac{-10 - 15\sqrt{5}}{41}$

13) $\frac{-5\sqrt{3x} + 15x + x\sqrt{6} - 3x\sqrt{2x}}{3x - 9x^2}$

14) $\frac{-16 - 4n^2\sqrt{5} + 16n\sqrt{3n} + 4n^3\sqrt{15n}}{16 - 5n^4}$

15) 7

16) 10.77

17) $\sqrt{29}$

18) $4\sqrt{5}$

19) 9

20) $6\sqrt{3}$

21) (2.5, 5.5)

22) (2, -0.5)

23) (0.549, -4.9)

24) (-6.9, -1.5)

25) $\left(\frac{6}{7}, 6\frac{11}{14}\right)$

26) $\left(-1\frac{21}{40}, 6\frac{3}{4}\right)$