16-03-10-T8 Review

Write the standard form of the equation of the line through the given point with the given slope.

1) through: $(-5, 2)$, slope = 3

2) through: $(5, 0)$, slope = $-\frac{4}{5}$

3) through: $(5, -4)$, slope = $\frac{1}{6}$

4) through: $(5, -1)$, slope = -3

Write the standard form of the equation of the line through the given points.

5) through: $(-5, -5)$ and $(4, 2)$

6) through: $(3, -4)$ and $(-5, 0)$

7) through: $(5, -2)$ and $(2, 4)$

8) through: $(-2, -3)$ and $(5, -2)$

Write the standard form of the equation of the line described.

9) through: $(5, 2)$, parallel to $y = x + 3$

10) through: $(-1, 3)$, parallel to $y = 4x - 3$

11) through: $(2, 4)$, perp. to $y = -\frac{1}{2}x - 3$

12) through: $(-4, 4)$, perp. to $y = x + 4$

Simplify.

13) $\sqrt{125}$

14) $\sqrt{50}$

15) $4\sqrt{100}$

16) $3\sqrt{100}$

17) $-\sqrt{2} - \sqrt{12} - \sqrt{2}$

18) $-\sqrt{8} - \sqrt{3} - \sqrt{8}$

19) $2\sqrt{2} + 2\sqrt{8} + 2\sqrt{8}$

20) $2\sqrt{8} + 2\sqrt{8} + 2\sqrt{8}$

21) $4\sqrt{3} \cdot 4\sqrt{3}$

22) $4\sqrt{6} \cdot \sqrt{6}$

23) $(-2\sqrt{2} + 2)(\sqrt{2} - 3)$

24) $(\sqrt{2} + \sqrt{3})(\sqrt{3} + \sqrt{3})$

25) $\dfrac{\sqrt{5}}{3\sqrt{3}}$

26) $\dfrac{3\sqrt{4}}{\sqrt{5}}$

27) $\frac{\sqrt{4}}{\sqrt{12}}$

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

29) $\frac{-3-2\sqrt{2}}{\sqrt{11}}$

30) $\frac{-4+2\sqrt{3}}{3\sqrt{15}}$

31) $\frac{\sqrt{2}+4}{3\sqrt{15}}$

32) $\frac{3+2\sqrt{2}}{3\sqrt{2}}$

Write each expression in radical form.

33) $(4x)^{\frac{2}{3}}$

34) $n^{\frac{1}{2}}$

Simplify each expression.

35) $\dfrac{\frac{10}{9}}{\frac{5}{3}}$

36) $\dfrac{\frac{1}{5}}{\frac{1}{2}}$

37) $\dfrac{\frac{3}{2} - \frac{9}{4}}{\frac{3}{2}}$

38) $\dfrac{\frac{2}{5}}{\frac{2}{5} + \frac{16}{25}}$

Answers to 16-03-10-T8 Review

1) $3x - y = -17$
2) $4x + 5y = 20$
3) $x - 6y = 29$
4) $3x + y = 14$
5) $7x - 9y = 10$
6) $x + 2y = -5$
7) $2x + y = 8$
8) $x - 7y = 19$
9) $x - y = 3$
10) $4x - y = -7$
11) $2x - y = 0$
12) $x + y = 0$
13) $5\sqrt{5}$
14) $5\sqrt{2}$
15) 40
16) 30
17) $-2\sqrt{2} - 2\sqrt{3}$
18) $-4\sqrt{2} - \sqrt{3}$
19) $10\sqrt{2}$
20) $12\sqrt{2}$
21) 48
22) 24
23) $-10 + 8\sqrt{2}$
24) $2\sqrt{6} + 6$
25) $\frac{\sqrt{15}}{9}$
26) $\frac{6\sqrt{5}}{5}$
27) $\frac{\sqrt{3}}{3}$
28) $-\frac{4\sqrt{5}}{15}$
29) $\frac{-3\sqrt{11} - 2\sqrt{22}}{11}$
30) $\frac{-4\sqrt{15} + 6\sqrt{5}}{45}$
31) $\frac{\sqrt{30} + 4\sqrt{15}}{45}$
32) $\frac{3\sqrt{2} + 4}{6}$
33) $\left(\sqrt[3]{4x}\right)^2$
34) $\sqrt{n}$
35) $\frac{2}{3}$
36) $\frac{2}{5}$
37) $-\frac{1}{2}$
38) $\frac{5}{13}$