Geometry 5.3a Worksheet Answers

1. $y = -\frac{1}{4}x + 2$
2. $y = 10x + 2$
3. Slope: 3   Parallel Slope: 3   Perpendicular Slope: $-\frac{1}{3}$
4. $y = 2x - 3$
5. $y = -\frac{5}{4}x + 5$
6. $y = -\frac{10}{3}x - 2$
7. $y = -\frac{1}{3}x - 8$
8. No parallel lines; line 1 and 3 are perpendicular
9. Line 1 and 2 are parallel; no perpendicular lines
10.   No, slopes are not opposite reciprocals of each other.
11. $y = \frac{3}{5}x + 9$ Slope: $\frac{3}{5}$ y-intercept: 9 Sum: $\frac{48}{5}$
12. $y = \frac{7}{4}x - 2$ Slope: $\frac{7}{4}$ y-intercept: -2 Sum: $-\frac{1}{4}$
13.

Statement	Reason
$\angle 1$ and $\angle 2$ form a congruent linear pair; $m\angle 3 = 90°$	Given
$\angle 1$ is a right angle	Congruent linear pairs form right angles
$\angle 3$ is a right angles	Right angles measure 90°
$d \perp a$ and $d \perp b$	Right angles form perpendicular lines
Line a and b are parallel	Line a and b are perpendicular to the same transversal line