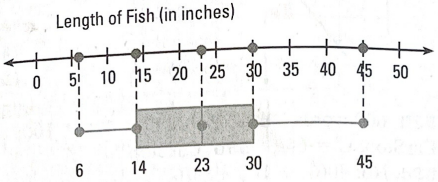
**62.** **Length of Fish *(in inches)***

| Stem | Leaf |
|---|---|
| 0 | 6 9 |
| 1 | 3 4 4 6 |
| 2 | 2 3 8 8 8 |
| 3 | 0 5 7 |
| 4 | 5 |

Key: 1 | 4 = 14 inches

**63.**




## *Pre-Course Diagnostic Test*

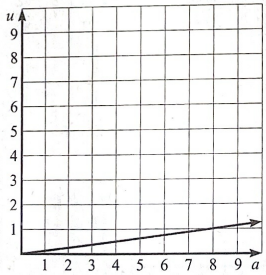
### Multiple Choice

**1.** B **2.** G **3.** B **4.** H **5.** C **6.** J **7.** D
**8.** F **9.** B **10.** H **11.** C **12.** J **13.** C
**14.** F **15.** D **16.** F **17.** B **18.** G **19.** A
**20.** F **21.** C **22.** F **23.** C **24.** G **25.** C
**26.** G **27.** A **28.** H **29.** B **30.** J **31.** C
**32.** F **33.** D **34.** F **35.** A **36.** J **37.** C
**38.** F **39.** B **40.** F **41.** A **42.** G **43.** A
**44.** H **45.** C **46.** G

### Short Response

**47.** $16.5h + 40$ **48a.** $u = \frac{1}{8}a$

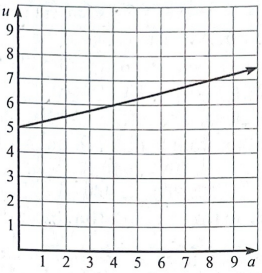
**48b.**




**48c.** $7\frac{1}{4}$ **49a.** $\frac{300}{m} + \frac{100}{m + 2.5} = t$

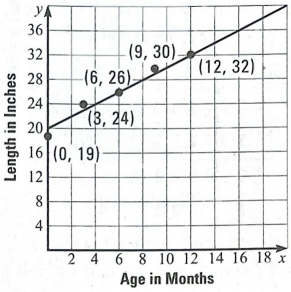
**49b.** 6 minutes 36 seconds or 396 sec
**50.** 6186 ft **51.** 240 min **52.** 54%
**53.** 445 min **54a.** $\ell = 0.25x + 5$

**54b.**



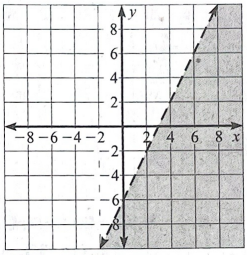

220 min

**55a.** $y = x + 20$

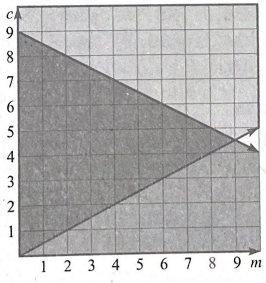



**55b.** 27 in.

**56.** Yes; $-1 - 2(4) < -6$




**57a.** $c \geq \frac{1}{2}m$; $c \leq 9 - \frac{1}{2}m$



**57b.** Yes **58.** $x = -4, y = 3$ **59a.** \$113.17 **59b.** \$101.92 **60.** No; The value of the discriminant is negative. **61a.** Quadratic; $h = -4.9t^2 + 36t + 20$ **61b.** 7.9 sec **62.** 0.94 miles **63a.** The pitcher **63b.** The runner is $50\sqrt{2}$ feet from home. The pitcher is $30\sqrt{2}$ feet from home. $\frac{30\sqrt{2}}{300} < \frac{50\sqrt{2}}{440}$. **64.** $b = 3$ **65.** Yes; $q = \frac{4.8}{p}$ **66a.** mean = 2.6, median = 2, mode = 0 and 6 **66b.** The median; 6 of Benita's 10 shots are within 2 inches of the bull's-eye.

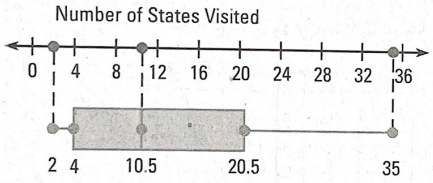
**67a.** 10.5;

**Number of States Visited**

| Stem | Leaves |
|---|---|
| 0 | 2 2 3 3 4 4 6 7 8 9 |
| 1 | 2 5 8 |
| 2 | 0 0 1 6 |
| 3 | 0 2 5 |

Key: 1 | 5 = 15 states visited

**67b.** 50%;




## Mid-Year Test

### Multiple Choice

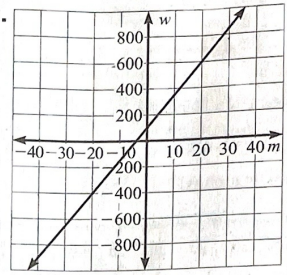
**1.** C **2.** G **3.** A **4.** J **5.** C **6.** J **7.** C **8.** G **9.** C **10.** H **11.** B **12.** G **13.** A **14.** G **15.** A **16.** G **17.** C **18.** J **19.** C **20.** J **21.** A **22.** G **23.** C **24.** H **25.** A **26.** H **27.** D **28.** J **29.** D **30.** F **31.** C **32.** H **33.** D **34.** H **35.** B **36.** F **37.** C **38.** F **39.** A **40.** F

### Short Response

**41a.** Gina **41b.** The clerk does not follow the order of operations. The clerk is adding 12 + 6.5 before multiplying 3 × 12. **42.** $s = 2.25n$ **43a.** $45a + 60(h - a)$ **43b.** 390 miles

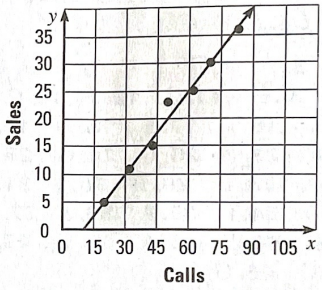
**44.** Rational; $-0.15 = -\frac{3}{20}$, which is the ratio of 2 integers **45a.** $C = 11.5y + 13.5$ **45b.** \$36.50 **46.** 17,700 ft **47.** $h = 20$ **48.** 1286 lbs **49a.** 140 **49b.** 91 **49c.** 65% **50.** $A(4, -5), B(5, 3)$ **51a.** 8 **51b.** −37 **51c.** $y = 8x - 37$

**52a.**



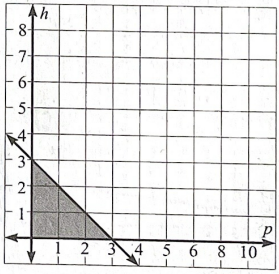

**52b.** 600 words **53a.** Bob's: $C = 40h + 100$; CarStop: $C = 65h$ **53b.** CarStop **53c.** No; $40(6) + 100 < 65(6)$ **54a.** $5x + 7y = -2$ **54b.** $5x + 7y = 14$

**55a.**




**55b.** $y = \frac{1}{2}x - 5$ **55c.** 110 calls **56.** $d < -4$ or $d > 1$ **57a.** $10p \le b \le 14p$ **57b.** 10 packages **58.** $k < 7$ **59.** $z \ge -2$ **60.** $a \le 3$ or $a \ge 9$ **61a.** $h \le 3 - p$

**61b.**




**61c.** The maximum time Gregorio has to do homework if he does not attend basketball practice. **62a.** $k = 1.25j$; $k + j = 1125$ **62b.** 5.6 hours **63.** 64 $cm^2$