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|  |  |  |  |  |  |  |  |  |  |  |
|  | Collecting Like Terms |
|  | ***Predict*** what you think the answer will be and then ***simplify the expression (if you can)***. |
|  |  |  |  |  |  |  |  |  |  |  |
|  | **A** |  | **B** |  | **C** |  |  |
|  | 1) | $$a+a+a+a$$ |  | 1) | $$a^{2}+a^{2}$$ |  | 1) | $$a×a×a×a$$ |  |  |
|  | 2) | $$b+b+b+b$$ |  | 2) | $$a+a^{2}$$ |  | 2) | $$\sqrt{a}+\sqrt{a}+3\sqrt{a}+2\sqrt{a}$$ |  |  |
|  | 3) | $$2b+b+b+b$$ |  | 3) | $$\frac{15h}{3}$$ |  | 3) | $$b×b×b×b$$ |  |  |
|  | 4) | $$b+2b+b+b$$ |  | 4) | $$a+a^{2}+3a$$ |  | 4) | $$\sqrt{a}+\sqrt{b}-3\sqrt{a}+2\sqrt{a}$$ |  |  |
|  | 5) | $$b+2b+b+c$$ |  | 5) | $$a+a^{2}+A$$ |  | 5) | $$\frac{15h+3h}{3}$$ |  |  |
|  | 6) | $$b+2b+c+b$$ |  | 6) | $$2ab+2ba$$ |  | 6) | $$\frac{15h+9q+3h}{3}$$ |  |  |
|  | 7) | $$b+2b+c-b$$ |  | 7) | $$2ab+2ba+2b+2a$$ |  | 7) | $$5a-4a$$ |  |  |
|  | 8) | $$b-3b+c+4b$$ |  | 8) | $$a^{-2}+a^{2}+3a^{2}+2a^{-2}$$ |  | 8) | $$a×b×b×a$$ |  |  |
|  | 9) | $$b+2bc+c+b$$ |  | 9) | $$a^{\frac{2}{3}}+a^{\frac{2}{3}}+3a^{\frac{2}{3}}+2a^{\frac{2}{3}}$$ |  | 9) | $$a×b×a×b$$ |  |  |
|  | 10) | $$\frac{b+4bc+2c+b}{2}$$ |  | 10) | $$a^{\frac{2}{3}}+a^{\frac{2}{3}}-3a^{\frac{2}{3}}+2a^{\frac{2}{3}}$$ |  | 10) | $$\sqrt{a}+a+a^{2}+2^{a}$$ |  |  |
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|  | Collecting Like Terms ANSWERS |
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|  |  |  |  |  |  |  |  |  |  |  |
| **A** |  | **B** |  | **C** |
| 1) | $$4a$$ |  | 1) | $$2a^{2}$$ |  | 1) | $$a^{4}$$ |
| 2) | $$4b$$ |  | 2) | $$a+a^{2}$$ |  | 2) | $$7\sqrt{a}$$ |
| 3) | $$5b$$ |  | 3) | $$5h$$ |  | 3) | $$b^{4}$$ |
| 4) | $$5b$$ |  | 4) | $$a^{2}+4a$$ |  | 4) | $$\sqrt{b}$$ |
| 5) | $$4b+c$$ |  | 5) | $$a+a^{2}+A$$ |  | 5) | $$6h$$ |
| 6) | $$4b+c$$ |  | 6) | $$4ab$$ |  | 6) | $$6h+3q$$ |
| 7) | $$2b+c$$ |  | 7) | $$4ab+2b+2a$$ |  | 7) | $$a$$ |
| 8) | $$2b+c$$ |  | 8) | $$3a^{-2}+4a^{2}$$ |  | 8) | $$a^{2}×b^{2}$$ |
| 9) | $$2b+2bc+c$$ |  | 9) | $$7a^{\frac{2}{3}}$$ |  | 9) | $$a^{2}×b^{2}$$ |
| 10) | $$b+2bc+c$$ |  | 10) | $$a^{\frac{2}{3}}$$ |  | 10) | $$\sqrt{a}+a+a^{2}+2^{a}$$ |